







## OUR ANNUAL RECORD.

THIS day we complete our thirteenth volume, and as we do so we are compelled to express our very hearty acknowledgments to the trade which has borne with us so long, and encouraged us so warmly.

We have no wish to refer very prominently to our labours; an index of this volume is published in this number and it speaks for us; but we ask indulgence for one sentence about the past. Among the many chemists and druggists of this empire it is likely that all may not be in good humour with us; but most will give us credit for having endeavoured always to serve the true interests of the trade. We, ourselves, respect all honest workers, and as Christmas time approaches, the season for forgiveness and cordiality, we hope we do not ask too much, when we invite a universal hand-shaking all through the ranks of pharmacy, and beg for standing room in the crowd for our humble selves.

Our staff can stand any strain in the way of receiving subscriptions. Our friends will greatly oblige us by remitting early. They will remember that 7s. 6d. pays for the journal, postage included, from January to December inclusive. Post-office orders payable to Edward Halse, at the General Post Office. We want all the strength we can get for next year, to keep up the fight with the Civil Service Co-operative stores, to secure the exemption from jury service for all registered chemists, and to take our part in all questions of pharmaceutical polity.

We are pleased to inform subscribers abroad that after this number we shall discontinue the employment of thinner paper for our foreign edition, and submit to whatever extra expense this resolution may demand.

Our Diary for 1873 is fairly spread over the country. But several thousand chemists are not yet supplied, and we want them all to order. Besides the diary proper the book contains pages ruled for keeping a record of invoice prices throughout the year; pages ruled for a revenue account, and to show quarterly balance-sheets; pages ruled for stock wanted, for miscellaneous addresses, for accounts payable and accounts receivable; for special accounts and for pharmaceutical seraps. Then it contains nearly two hundred valuable formulæ, and a considerable quantity of varied and useful information. Now this diary, instead of being five shillings or seven and sixpence, as other diary makers charge for theirs, with not half the contents, is sold at the ridiculously low price of one shilling; or got up in very superior style, interleaved with blotting paper, and altogether a handsome book, price two shillings. Postage is extra, 3d. for the cheaper edition, 5d. for the best, but we will send a copy to any City house for enclosure on receipt of the published price. We have had numberless compliments from gentlemen in the trade on this work, but we do not wish to publish names. We quote, however, a few publicly expressed opinions.

The *Pharmaceutical Journal* says:—It presents features of peculiar interest; and is calculated to keep up the reputation won by its predecessors.

The *Grocer* says:—It is excellently got up, and contains a fund of useful information.

The *Figaro* says:—It is one of the completest we have seen. Invaluable to the trades for whose special needs it has been prepared.

*Burgoyne's Monthly* says:—The extraordinary low price at

which it is published should ensure its being found on the counter or desk of every man in business, who makes any claim whatever to be a business man.

The *Standard* says:—It is prepared for a special class, and for them is eminently well adapted.

The *British Trade Journal* says:—It appears with several new claims upon the favour of all concerned in the dispensing of medicines.

And *Judy* remarks that she is neither a chemist nor druggist, but that this diary seems to be full of valuable information for her guidance should she ever go into either trade.

Gentlemen, we are anxious to do a handsome stroke of business between this and Christmas day; and we look to your friendly aid. At the same time we sincerely wish you every prosperity and happiness during the year which approaches us.

## THE CHEMISTS' BALL.

The Chemists' Ball is announced for January 22nd, at Willis's Rooms as usual. We mention it thus early that our readers of Terpsichorean tendencies may keep themselves disengaged for that evening, and may have time to choose their partners.

## THE JOHN CARGILL BROUH FUNDS.

We learn that the various funds established for the maintenance and education of the children left unprovided for by the late Mr. J. C. Brough have been heartily supported in all quarters. Next month we hope to publish a complete account of all the funds.

## PHARMACEUTICAL NOVELTIES.

At the Evening Meeting of the Pharmaceutical Society, on December 4, Dr. Redwood exhibited and described one of Beindorff's steam apparatus for pharmaceutical laboratories. These apparatus of various sizes are very perfect, and are frequently employed in Germany. They are introduced into this country by Messrs. A. and M. Zimmerman, of Fen-court. Mr. Giles, of Clifton, sent a model of a macerating and percolating apparatus, consisting of sixteen cones in a stand, the principle being to percolate the menstruum through the whole series. By this means it has been proved experimentally that a tincture of a higher specific gravity can be obtained. Mr. Umney and several other speakers intimated their preference for a series of cylindrical rather than conical vessels. Mr. Wootton exhibited samples of French elegant pharmacy, which will be found fully described in another part of this journal.

## THE U.S. PHARMACOPEIA.

In a letter of a later date than that published in this number, our American Correspondent writes as follows:—

I saw this morning the proof sheets of our new U.S.P. As the work is now in the hands of the binders, it is confidently expected to be ready for delivery within two weeks. I will give you a hasty review of it for next month, and will forward a copy at once to you.

I can only say that the nomenclature adopted, is that of your friend Attfield.

## THE GREAT EXPLORING EXPEDITION.

EVERY one interested in scientific research, must be much gratified at the liberal manner in which the Government have made all preparations in connection with this expedition, organized for exploring the wonders of the oceans in both hemispheres. There can be no doubt whatever that science will be much benefited by the expedition, and although it will be something like three years and a half before its return, we may expect to hear from time to time, of the progress that is being made. The course taken by the good ship *Challenger* which carries our scientific representatives, is not definitely fixed, but the following programme has been issued:—

The vessel will probably go round to Portsmouth, and sail from thence for Gibraltar, the first trawl of the dredge being made in the Bay of Biscay. From Gibraltar, she will proceed to Madeira, thence to St. Thomas, the Bahamas, Bermuda, the Azores; from thence to Bahia, touching at Fernando Norohna; then across to the Cape of Good Hope, and, after a stay in that neighbourhood, southward to the Crozetts and Marim Islands and Kerguelens Land. A run southwards will then be made as far as possible to the ice, and the course thence be made to Syndey, New Zealand, the Campbell and Auckland groups, Torres Straits, New Guinea, and New Ireland will then be visited. A long cruise of perhaps a year will then be made amongst the Pacific Islands; thence the expedition, passing between Borneo and Celebes, and visiting Luzon and its neighbourhood, will proceed to Japan, where a stay of two or three months is expected. Thence northward to Kamtschatka, whence a run will be made northwards through Behring's Straits, and then through the Aleutian Islands, southward to Vancouver's Island, and so through the deep eastern region of the Pacific by Eastern Island, and possibly by the Galapagos Archipelago to the Horn, and thence home. The scientific staff of the expedition is under the direction of Professor Wyville Thomson, F.R.S. Of the three naturalists, Dr. Von Willmoes Suhm and Mr. Moseley will undertake especially the invertebrata procured during the expedition, whilst Mr. Murray will direct his attention principally to the vertebrata. Mr. J. V. Buchanan, of Edinburgh University, has been appointed chemist. A chemical laboratory and naturalist's work-room have been fitted up in the after-part of the vessel, the chemicals and preparations for which have been specially prepared in the laboratories of Messrs. Burgoyne, Burbidges and Co. Amongst the stores of a ship fitted out for such a purpose, it may well be imagined that some curious objects are to be found. Such for instance, as traps of various kinds, harpoons, harpoon-gun, and fishing tackle of all kinds, including trawls, trammels, shrimp nets, fish-traps, and lobster pots. Besides these special apparatus for physical research have had to be prepared, and amongst these is an instrument devised by Mr. Buchanan for bringing up samples of water from the bottom, provided with two taps, which are closed by the contact of the apparatus with the bottom, and a safety valve to allow for the expansion consequent on a decrease of pressure as the apparatus is hauled up. We heartily wish these brave explorers *bon voyage* in every respect, and trust the world will be benefited by their discoveries.

## PHARMACIENNES.

AN Irish editor says:—"I know of no earthly reason why women cannot become *medical men*, and if *medical men*, why not *chemists*?" This is also evidently the opinion of the irrepressible women's rights party, which is pushing to the front

with the question of lady pharmacists. The latest recruits to the movement, are the *Birmingham Daily Post*, the *Pall-Mall Gazette*, and the *Lancet*. The Queen returns to the charge, like a giant—we beg pardon a giantess—refreshed, and maintains that the examinations, such as that of the London University, which women now pass, involve attainments of a much more varied kind than those required to become a qualified dispensing druggist.

The *Pall-Mall Gazette* of November 11, contained a sensational article on "Women as Chemists," which displayed a most amusing and charming innocence in dealing with romantic accounts of 400 to 600 per cent. profits in the drug trade; and in fact, showed a most astounding ignorance in its description of the present condition of druggists, which it would be impossible to understand, did we not know that the *Pall-Mall Gazette* professes to be written by *gentlemen* for *gentlemen*, who could not possibly know anything of the ways of trade.

The *Lancet* whilst favouring the movement, assumes the patronizing character—it says, "Doctors are *only waiting* till dispensing can be done at reasonable prices by chemists, to *hand over the whole of their prescriptions to them*; perhaps the introduction of women into the trade, may hasten this most desirable arrangement." This will be joyful news for some of our country friends—it is almost too good to be true. The "women as chemists" movement, is certainly one of the signs of the times, and is worthy serious attention. Our young men must look to their laurels, but ladies must understand that they will have to work before they attain their position. Some of them, we may hint, are not quite free from superficiality. At a recent examination of female candidates at Ohio, the following are a few specimens of the answers returned:—"The food is first masticated, and then passes through the phalanx," "Respiration is the sweating of the body," "The chest is formed of two bones, the sternum, and the spinal cord," "Emphasis, is placing more distress on some words." One candidate said, that "Virginia was named after the Virgin Mary." Another that it was so named from Victoria calling it a virgin state.

## CHECK

A VERY gallant fight with a couple of armed burglars was maintained by a chemist's assistant in Birmingham, last week. The intruders had entered the house of Mr. George Wilcox, and had packed up a quantity of plunder, but unfortunately for themselves they managed to disturb Mr. Withers, the assistant referred to. This gentleman showed considerable proficiency in the "noble art," but one of his antagonists fired a pistol at him and shot him in the foot. The burglars then managed to escape, minus the "swag," and have not since been heard of. We hear from Birmingham that Mr. Withers is going on favourably.

"LET BROTHERLY LOVE CONTINUE."—At the Salford Assizes on the 7th inst., James Blackburn, of Rochdale, brought an action against Edmund Hartley, chemist, of Todmorden, for assault and battery. The plaintiff and defendant are both members of the Prudent Lodge of Freemasons assembling at Todmorden, and the cause of the quarrel was matter of purely Masonic procedure. The judge and counsel suggested a settlement of the brawl amongst the Freemasons themselves, but of no avail; the case proceeded, and after the examination of a number of witnesses, a verdict was returned for the plaintiff. Damages £25.



## UNITED STATES.

NEW YORK, November 22nd, 1872.

THE turmoil and bustle of our political elections are over, and our country, by the most enthusiastic majority ever given to a chief magistrate, re-elects its brave defender in the days of its strife to remain its President. The immense popular majority in the whole Union, as also the very large number of the States which gave the electoral vote in favour of the Republican candidate, was an agreeable surprise, even to the most sanguine of General Grant's friends. Already business feels the effect of the result of the election; confidence is restored as to the financial questions of our country, and everything assumes a cheering aspect for the future. The position the President has taken in regard to appointments to office only after the applicant has served in some similar office of less rank and has shown himself competent, instead of nominating political aspirants, shows his desire and intention to put reliable men in the civil service of his country. With the great reduction in number of office holders, the continued economical administration of Government affairs, and with the abundant resources of our land, we are rapidly lessening the immense debt accumulated in our civil war. Long may prosperity, peace, and plenty, be the portion of our fair land.

In my last letter I mentioned the fact of a malady affecting the horses in the vicinity of our city. Since that time that peculiar trouble has left this portion of our State, but the disease has travelled all through the country, and in surrounding States is now as serious an inconvenience as it was here. It has impeded business of all kinds, and caused immense loss and trouble. On some of the canals it has entirely stopped all passage of freights, and the great spread of the late dreadful fire in Boston is attributable in part to the inability to get the steam fire-engines to the scene of conflagration speedily, owing to the fact that most of the horses belonging to the fire department were disabled by the "epizootic." Since the disappearance of the scourge in this city some of the poor animals, not very kindly cared for through their sickness, have been attacked with a sort of dropsy, which, though far from being so wide spread as the first disease, has been much more fatal in its results. Now, however, to see the busy thoroughfares, one could scarcely realise that a few weeks ago the whole community was suffering in various ways from the want of means of transportation of our wares and ourselves.

The terrible scourge of fire has again swept over a large tract of one of our finest cities. On the night of Saturday, November 2nd, a fire broke out in a building in the business portion of Boston, and in less than twenty hours over sixty acres of one of the most valuable mercantile portions of the city was utterly destroyed. Magnificent structures of granite, which were thought to be fire-proof, crumbled to the earth, and a shapeless mass of ruins alone remained to mark the position of many of the most valuable stores. Weeks and Potter, the largest wholesale drug house of the city, at once hired another store, and on Monday morning were at work executing orders received by mail. The energy of the Boston sufferers is truly wonderful. The instance just given is but one of many which I might note. Before a twelvemonth passes the vast area of desolation will be covered with better buildings than before, and the severe ordeal of fire will, doubtless, cause the widening of the streets of the locality, and the erection of buildings which will better withstand the fiery demon. The greater portion of the loss falls upon dealers in leather, boots, and shoes, dry goods, and manufactured goods, though almost

every kind of business is represented among the sufferers. It is probable that the total loss will reach £10,000,000.

In things pharmaceutical there is but little that is new. The United States Pharmacopœia, for which we are so anxiously looking, has not yet appeared, though promised by this time, and I confidently believe that before the new year it will be in the hands of our pharmacists.

The colleges of pharmacy throughout our land are all in a flourishing condition, and the number of students who are now availing themselves of the instruction offered by these institutions is much greater than in any previous year. New teaching colleges are to be established in Nashville, Tenn., and San Francisco, besides one now being organized in Washington, district of Columbia.

In pharmaceutical literature there is nothing new. It would seem desirable that there should be some more recent works than we have, especially in medical botany and practical pharmacy, to meet the wants of students.

The Board of Pharmacy of our city state that they are greatly pleased with the apparently good general knowledge of those persons who have presented themselves for examination under the law. The ratio of those rejected or who were obliged to come up for re-examinations was very small, while the great majority of persons examined were able to answer satisfactorily the various queries given them. Over 100 proprietors of stores in this city have as yet failed to appear before the Board, and if they do not comply at an early date they will be prosecuted by law.

## PHARMACEUTICAL COUNCIL.

A MEETING was held on Dec. 4th, Mr. A. F. HASELDEN presiding. The following were the subjects of deliberation.

## THE JACOB BELL MEMORIAL SCHOLARSHIPS.

In consequence of representations made by Mr. Atherton to the effect that injustice would be done to some students who had commenced to prepare for the examination in 1873, it was resolved that the new regulations\* should not come into force until after the competition of 1873.

## ANALYSTS UNDER THE ADULTERATION ACT.

The President referred to Mr. Stansfeld's reply to a deputation of medical men, a report of which had appeared in the newspapers, to the effect that an ordinary chemist and druggist was not competent for appointment as analyst, and he did not imagine any such persons would be appointed. He (the President) thought this applied equally to ordinary medical men, that there were among chemists and druggists many quite qualified and eligible for the appointment, and that a deputation on the part of the chemists and druggists should wait on Mr. Stansfeld to urge their view of the matter. This was carried unanimously, and the President, Treasurer, Messrs. Sandford, Greenish, and Betty, the Secretary, and the Society's Solicitor, with power to add to their number, were appointed the deputation.

## AMENDED REGULATIONS OF THE BOARD OF EXAMINERS.

The amended regulations, as proposed by the Board of Examiners, were submitted.

Mr. SCHACHT said that as a member of the General Purposes Committee which had met a deputation from the Board of Examiners to consider this matter, he would propose the adoption substantially of the recommendations. In the first place, there was a certain limit of age in the candidate for the Minor examinations, and the necessity of producing a certificate of having been engaged a certain time in the practice of pharmacy. That was one point of the utmost consequence. Then, again, there was a general shifting of the subjects in which the candidates were to be examined—some being taken altogether out of the Major, and thrown altogether into the Minor—and there was an apparent excess of matter urged upon the candidates for the Minor examination. The first topic seemed to be the one of by far the most importance, and to it he felt inclined most warmly to accede. The proposed change

seemed a most wise one, and not only wise in itself, but in accordance with the spirit of the Act of Parliament which gave them power to examine at all. In fact, the opposite course seemed to be involved in absurdity; that that Society, in whose hands was vested the power of determining on behalf of the public who was or was not competent to carry on the business of a chemist and druggist, should be able to empower any young man, at the age of sixteen even, to do so was a simple absurdity; and it could not be other than in accordance with the intention of the Act of Parliament, that they should require such persons, who were to be stamped, as it were, with their certificate, to be of the mature age of twenty-one. The necessity that candidates should have passed a certain portion of their previous years in practical pharmacy, was what all recognized as positively necessary when themselves engaging assistants, and it was only fair to insist upon the same thing before allowing any one to practise his profession for the benefit of the public or otherwise. The alterations proposed in the Minor examination were not so great as might appear, and one or two points certainly seemed quite sensible, and only such as ought to be required by those in whose hands the public safety was placed. The small extra modicum of science could not be objected to by any one, and he thought the whole changes were in that direction which had been of late much clamoured for, namely, to prove whether a candidate had a practical knowledge of his business. He believed there was some little difference of opinion whether they had power to make these changes, and with that view he had framed his resolution, so as, if possible, to limit the expression of the opinion of the Council to the principles involved. And as there was also an idea in some minds that by carrying the regulations as they stood, they should be pledging themselves to the existing arrangement of fees, which was quite a different question, he also intended to exclude that subject. If those two elements of difficulty were eliminated from the question, he could not but hope that the proposition would be unanimously carried in this form.

"That the proposed amended regulations of the Board of Examiners, with the omission of all words relating to fees, be adopted, and that the question as to the Council possessing the legal power to carry the proposed alterations into effect be referred to the Parliamentary Committee."

Mr. STODDART seconded the resolution. He knew two or three instances at the present moment of young men who had passed the Minor examination, which qualified them to keep open shops as chemists and druggists, who did not really know how to carry on the business at all. They had been apprenticed to masters who had rather taught them to come and pass the examination than how to carry on their business, so that they really were not qualified. That, at any rate, showed the necessity for requiring three years' experience before passing the examination, and his own opinion was that a young man ought to know his business first, and then come and pass the examinations afterwards. He had carefully looked over the amended regulations, and could see nothing at all to make them too difficult, unless it were the few words under the head of botany relating to the "arts and domestic economy." There was nothing there difficult in itself, but it might give the examiner the power of making the examination very difficult indeed.

Mr. FRAZER moved an amendment,

"That the proposed alterations in the character of the present examination be not adopted."

He said he did not do so without serious consideration, and he was very sorry Mr. Mackay was not present, because he knew he took the same view. He would not go into the minutiae of the matter, but he did not think any circumstances existed at present warranting a change. He was not aware that the present examinations had proved inefficient, though of course, isolated cases might occur, just in the same way as medical men occasionally proved inefficient to perform the responsible duties cast upon them, even although they might have passed a stringent examination. Generally speaking, however, he did not think the public safety had suffered from the inefficient conduct of their businesses by those who had passed the Minor examination, nor did he think the Privy Council would permit any increase in the stringency of the examination. At the

time the Act of Parliament was passed, the Minor examination was intended for assistants, but the Privy Council stepped in and insisted that men who passed it should be allowed to conduct business on their own account, and he believed the same motto which actuated them then, would operate now to prevent what he maintained was a very considerable increase in the stringency of the examination. If changes were to be introduced, there was no doubt there would be a considerable diversity of opinion as to what the changes should be, as there had been with regard to the educational question. Some time ago this matter had been very much discussed in Manchester, and great difference prevailed as to what should be done. Even with the present examination, it was well known there was a great difficulty in getting apprentices. This was found to be the fact in Glasgow, and it was the same in Edinburgh, and he had the testimony of men all over the country to the same thing. Of course there might be exceptions, as there were to every rule, and there was also a difficulty in getting young men at the termination of their apprenticeship on account of the stringency of the examinations and the expense of the fees. It had been stated that at the present time there was a much larger number in the trade than was either profitable or necessary, but there could be no doubt, that if these changes were carried out, by-and-by it would be found that men could not be obtained to conduct the business, and they would have to take down their shutters themselves. The reason was very plain. The classes from whom they had hitherto derived their apprentices and assistants could not afford to give their sons the education necessary to fit them for these examinations, and the classes above them would not put their sons to such a business. He himself was giving his own son a university education, but he questioned if there were more than three or four young men in Scotland preparing for the business who enjoyed the same advantage. No doubt the business was rising in importance, but so were others in equal proportion. The present regulations had only been four years in existence, and he certainly thought it was too soon to make any change. In confirmation of what he had said with regard to the difficulty of getting assistants, he might add that he had recently heard from one of the large wholesale London houses that even they had now a difficulty in getting assistants, and had to look to the country for them, instead of having a list of applicants to select from, as had formerly been the case. He had no objection to any amount of science being introduced into the profession, and, for himself, he regretted that the Senior Bell Scholarship was to be abolished; but still he did not want the compulsory examinations to be higher than the safety of the public demanded. Some persons might think there were too many in the trade, and that if there were less it would be better for those who remained, but still they were bound to act in accordance with the views of their constituents, and not to exclude young men who were not prepared for such stringent examinations, especially considering that even now the Senior Bell scholars were leaving the business and getting into better occupations. Very recently there had been a meeting in Edinburgh of some of the most highly qualified men in Scotland, when there was but one feeling, that the present examination should not be interfered with.

Mr. HAMPSON, in seconding the amendment, said he was one of the last men who objected to any real advance in pharmacy, or to do anything which would prevent its development in this country; but besides the advancement in pharmacy they must look at the matter from another point of view, not only as pharmacists but as traders; and he wished the Council to pause before sanctioning the great step proposed in the contemplated alterations. Only three or four years elapsed since a very great change took place, viz., the passing of the Pharmacy Act, which of itself was a very important step as affecting the trade, and he thought it very unadvisable that another change should be made so soon. The examinations as at present conducted, he believed, were not sufficient to test the qualifications of men who had to conduct our business; and it must be borne in mind also that they were not legislating for Prussians or Frenchmen, where the whole influence of the State was exercised to support pharmacy, and to give it a proper status. In the majority of businesses

throughout the country a very small amount of pharmacy proper was transacted in a chemist's shop; and until there was a larger amount of real scientific work to do, it was exceedingly premature to take such a step as this. No doubt these regulations had been proposed by the examiners with a good object, and were very suitable for the purpose they intended, but notwithstanding that he believed they were unnecessary and unadvisable. Then, again, the legal obstacle had been referred to, and had not yet been cleared up. It was intended to exclude all who had not passed a period of pupilage; but this, in his opinion, was a retrogressive step. Medical men were now doing away with the system of pupilage, considering it unimportant; and considering that about 99 per cent. of the candidates had passed through an apprenticeship, which was the natural inlet to the trade, he did not think it necessary for the sake of the hundredth to tie their hands in such a way. The London trade were well represented in the Council, and in consequence of the large amount of pharmacy which passed through their hands, they might be disposed to take a partial view of the question; but they must bear in mind the character of the trade throughout the country, and he believed if all country chemists were obliged to pass these examinations, the test would be altogether out of character with the condition of things. There was another important point to be remembered, the number even now leaving the trade. It will be said from a selfish and purely interested point of view, that it would be a good thing for those who remained; but the interests of the public must also be borne in mind. Rather than come to a decided vote on the matter that day, he should much prefer the question being postponed; for he did not think they were competent to settle it in a hasty manner, and most certainly he thought any such change was unadvisable for some years to come.

Mr. SAVAGE suggested twenty instead of twenty-one as the limit of age for the Minor examination. If a boy were apprenticed at sixteen he seldom continued more than four years, which left him one year before he could pass his examination; and he was never so likely to succeed after that interregnum as he would be during his four years of apprenticeship. In the main, however, he agreed with the amended regulations. With regard to the difficulty of getting apprentices, it was probable that under the new state of things there might be even less than there was at present, in consequence of the profession being more appreciated.

Mr. BAYNES thought they were attempting the alteration much too soon. The Pharmacy Act of 1868 took by surprise many young men who never expected to have to submit to an examination at all, and an increased stringency would not only be an injustice to these young men, but would arouse a feeling throughout the country that as alterations were being made so soon, others would be made later, and altogether young men would be deterred from turning their attention to the business at all. It must be remembered that in many country places the amount of pharmacy proper was very small indeed, not half a dozen prescriptions, perhaps, being seen in the course of a week, so that a great part of the work of a chemist's shop might as well be done by a porter. If these examinations were made too strict, the result would be the calling into existence of a class of men, not calling themselves chemists, who would retail drugs. Even at the present time, many grocers were selling drugs and chemicals, and the trade was being cut up not only by co-operative stores, but by other traders. Making the qualifications too high would be only holding out a premium for irregular trading. He should be glad therefore if the question could be postponed *sine die*, especially as all those to whom he had privately mentioned the subject agreed that it was quite a mistake to attempt any further alteration at present.

Mr. AERTHERTON did not think there would be any objection raised within the district he was acquainted with to these regulations being passed almost as they were. In fact, they were not increasing the rigidity of the examinations, but only making them more practical.

Mr. URWICK said, the Board of Examiners were, perhaps, the best qualified to form a judgment on the matter. It was only proper that the public should be protected by a severer test being imposed. He agreed with Mr. Savage that the age might be reduced one year, for he thought any one

might learn the business in three years if he had common sense and application.

Mr. WILLIAMS said that these new regulations really arose through the past action of the Council itself. About a year and a half ago the Council were forcibly impressed from what occurred out of doors, as well as what they heard in other ways, that the examinations were not anything like what they ought to be; Mr. Siebold, of Manchester, for instance, expressing an opinion that they were a sham. The consequence was that a deputation of the Council met the Board of Examiners, who were then of opinion apparently that no alteration was required; but the question being argued at some length, the Board of Examiners took a different view, and the result was that, after much consideration, these improved regulations had been proposed. The attempt had been, not to make the examinations more stringent, but to make them more consistent; and he believed this was their real effect. The present regulations required a man who went up for the Minor to be examined in prescriptions; but there was no power of examining him as to unusual or poisonous doses or in mistakes. Now, it was certainly very inconsistent to give a man the power to carry on business, when he had not completed his examination in such a necessary object. The Council had impressed upon the Board of Examiners that they should make the Minor as purely practical as possible, so that a man who had passed some time behind the counter of a good house of business ought to be able to come and pass his examination without the necessity of cramming or resorting to other extraneous sources. At the same time, it was felt that the Major should be made if possible the test of scientific acquirements, whilst the Minor was the test of practical knowledge. In that way he believed they would be carrying out the intention of the Act of Parliament and doing their duty both to the public and to themselves, which, he believed, with the present examination they did not do.

Mr. OWEN said, though he did not wish in any way to oppose the advancement of pharmacy, he could not forget what had been said by Mr. Baynes and Mr. Hampson, who had an extensive knowledge of country businesses. He could also speak as to the difficulty of getting assistants, particularly juniors, and thought any further restriction would be a great mistake, especially considering the short time since the Act was passed.

Mr. RADLEY said the new regulations recommended themselves very strongly to his judgment, and he did not anticipate any difficulties whatever being raised in the country, for he believed they would meet with general approval.

Mr. SHAW said it always appeared to him that the Act of 1868 was defective in certain respects, especially in allowing a young man to be examined at any age, either fifteen, sixteen, or seventeen. It might, however, be a question whether twenty should not be substituted for twenty-one. Requiring three years' practical experience was a very good feature, for he had it on the authority of Professor Attfield that those who had had no practical experience in a shop were the very persons who endeavoured to get through their examinations by means of cramming. In his opinion it was desirable that the Minor examination should be made as stringent as possible, seeing that the passing of it entitled a person to undertake the dispensing of medicine. It was true at the time the Act was passed the Government did not wish that the Major examination should be a business qualification, but it did not necessarily follow that that should be understood to apply to all future time. Under the head of chemistry in the Minor examination there was the word "practical" in italics, which he should like to have some definition of, because, as it stood there, it appeared to him that it might be construed to mean that the candidate must have been practically engaged in a chemical manufactory.

The PRESIDENT said he did not suppose any such thing was intended, but it only meant that the candidate should possess a knowledge of how certain articles, such as quinine and bicarbonate of soda, were produced.

Mr. SHAW said he only wanted it made clear, so that there might be no mistake about it. With regard to the objections which had been made, he thought the change would improve the *status* of the profession, and induce young men to come into it, knowing that they would occupy a higher

position than they had hitherto done. In that way he hoped they might in time arrive at a greater unanimity in charges for the greater benefit of the whole trade. If, on the contrary, they enabled young men to come in on very easy terms, they would only be perpetuating the evils which had been in existence for the last thirty years. He should therefore vote for the adoption of the new scheme, especially considering that the Board of Examiners so strongly recommended it.

Mr. SANDFORD said a great deal had been said about its being proposed to change the examination at the present time, but in October, 1873, when the new regulations would come into force, the Pharmacy Act of 1868 would have been in operation five years, and therefore they could scarcely expect any young man who was apprenticed at that time would be injured by them, and any who had entered the trade since had come in knowing that such examinations must be passed. Still, he should have no objection to the date being altered to 1874, if it were desired, which would give them six years. Dr. Greenhow, the Government visitor, had expressly urged that the Minor examinations might be made more stringent and practical. It had been proposed that the age should be twenty, but their solicitor informed them that it was really a question whether a man before the age of twenty-one had any right to be examined at all. Until that age he was an infant, and was not entitled to the privileges of a "person" as mentioned in the Act. He believed twenty-one would be a very good age, because it would almost insure a certain period of practice in dispensing. It had occurred to him as a desirable regulation, that three years, or four, might be required between the passing of the Preliminary examination and the passing of the Minor, which would also have the effect of ensuring only properly educated youths coming into the business.

Mr. SUTTON asked if that would be legal.

Mr. SANDFORD said he did not know of any illegality in it. They already provided that a man could not come up for the Major until three months after passing the Minor, and it would be just as legal to say three years as three months. He merely threw out what seemed to him a good way of securing the Preliminary examination being passed at the commencement of the apprenticeship. With regard to the alterations themselves, he could not see very much difference between them and the regulations in the Calendar which he held in his hand, and he agreed with what had been said, that the examiners might have made the examinations just as stringent under the old as they could under the improved regulations. They had transposed a certain part of the old rule headed "Practical Dispensing" to "Reading Prescriptions," and had added "to detect errors, discover unusual doses, and have a general knowledge of posology; also to render in good Latin prescriptions written in English." In the old form it was to translate prescriptions, and detect unusual doses, and to render literal as well as appropriate translations of the directions for use. Now here they had to render in good Latin prescriptions written in English. All that was perfectly necessary, for it was well known that errors did occasionally occur in prescriptions, and the detecting unusual doses was the same thing as detecting errors. That, therefore, was very little more than there was before. Then in the pharmacy clause, they had added "and to give the best excipients and methods of manipulations for forming emulsions, pills, &c.," and also "to give the proportions of the active ingredients, and possess a practical knowledge of the processes" for making certain preparations. Formerly they were asked to give all the ingredients in certain preparations, but it was of much more importance that the student should know as well as the principal ingredient in what way the preparation is made. For instance, to take confection of senna; it was more important that the young man should know how to make it than that he should know the exact weight of figs to be used. The *materia medica* clause stood as before. In the botany clause Mr. Stedhart took exception to the words "domestic economy," and he believed any little matters like that the examiners would only be too glad to alter if necessary. The clause relating to chemistry did seem stiffer than many would like; it stood "to determine practically, by means of tests, the presence in solution of the chemicals in common use, and explain the reactions which occur in each case. To possess a general knowledge of the

laws of chemical philosophy" (which seemed a rather wide expression), "and a practical knowledge of the means of determining specific gravities, densities, and temperature, and of the instruments appertaining thereto, and the physical and chemical constitution of the atmosphere." He did not know how that could be modified in any way, it was at any rate not more than a man ought to know. He had certainly met with such lamentable errors in the examiners' room as perfectly startled him. He had heard from the President the other day that in a prescription put before the young men who came to be examined, the word *incipiens* occurred, and coming under one of the examiners there was only one man who translated it correctly.

Mr. WILLIAMS said that at a late meeting of the Board of Examiners he understood one of the questions put was this—something was to be evaporated in a water bath, and the question being asked what was the temperature of the water, the young man said he did not know, he did not expect that question.

Mr. BETTY hoped they would vote almost unanimously in favour of the new regulations, which he believed would thoroughly stand the test when they came to be applied.

Mr. BOTTLE maintained that the alteration proposed was nothing more than asking men to show that they were practically acquainted with the business, and all this might fairly be expected of them. Mr. Sandford, however, had taken up the position which he was about to take in asking to defer, until 1874, the introduction of this new regulation. He thought that was only fair, and would give longer notice to those who were now preparing for examination. As to the observation that it was utterly impossible to expect the pupils of country chemists to pass the improved examination, he thought that if any pupils ought to pass such a one, they were the pupils of country chemists; for if their masters knew anything at all they had more time to teach it than those engaged in business in London, or large towns.

Mr. HILLS asked the proposer and the seconder of the resolution if they would agree to alter the date to 1874 instead of 1873. By that means they would be acting, perhaps, more fairly towards those who came into the business.

Mr. SUTTON said he had been talking to Dr. Odling and Professor Williamson in regard to the nature of the examinations which they conducted, and how they dealt with those questions which referred to the processes going on in large chemical manufactories—such as alkali works. They told him that they always incorporated these things in the examination; and he asked them how they provided for the ease of a man who came up from some locality where he could know nothing at all about these things. They told him they did not make any strong point of such questions. If they happened to have a man from a locality where he had an opportunity of obtaining a knowledge of these processes, they passed it to his credit, and if he did not, they passed it by altogether. That appeared to him the only way of doing it; for otherwise it simply resolved itself to this—a man must have lived in a certain place, or he could not know anything about such matters.

Mr. BAINES said if the year 1874 was substituted for 1873, it would meet the views of many of the Council.

Mr. SCHAEHT, in replying to the amendment, said if there was a strong objection to the introduction of the words "domestic economy," he knew the examiners would be willing to expunge them. Their intention, however, in introducing them was merely that the candidates' knowledge should not be absolutely limited to medical botany. If, however, it was supposed that the words referred to included an examination upon all subjects connected with the words "domestic economy," of course it would be better to expunge them altogether. He, however, wished it to be understood particularly, that the Board of Examiners considered the general arrangement of the paragraphs as essential to their scheme, and that to alter the balance of the subjects would spoil it altogether. To each of these subjects a certain number of marks were assigned, and they were carefully arranged so as to convey a general result to the minds of the examiners. Any material alteration, therefore, would be mischievous. For his own part he regretted the suggestion of postponement for a year, for he did not see why it should not come into operation at the

end of the current session. At the end of that time he saw no injustice to anybody if the new regulations came into force. At the same time he felt quite sure that the Board of Examiners were the last body who would wish to insist on their own views, but would be willing to explain them if that were felt to be necessary. He would remind those who thought there was an extra stringency in the regulations, that the full number of marks which could be obtained by a candidate were not required in order to entitle him to a certificate. As to altering the age, he thought there would be equal difficulties in the way, and on the whole he should prefer the matter being referred to a committee who should confer with the Board of Examiners.

Mr. STODDART, as the seconder, said he should be glad to consult with Mr. Schacht. He was only anxious that they should have the Minor made a good and practical examination. He had been rather misunderstood as to his objection to the words "domestic economy," his only object being that he might be able to advise young men who frequently came to him as to the course which their studies should take.

Mr. GREENISH said that the words were simply inserted in order that the examiners might have an opportunity of ascertaining whether the young men knew anything of botany generally. In other words, to give the examiners more scope.

The PRESIDENT said he hoped the regulations would be passed at once, for if sent back to a committee it would only cause delay. With regard to the time, he was rather in favour of 1874, because it would take two or three months at the earliest before the necessary bye-laws could be legally passed and go to the Privy Council for approval, at the end of which time candidates would have only six months to prepare themselves. He should be glad if Mr. Frazer could see his way to withdraw his amendment.

Mr. FRAZER regretted that he could not do as the President suggested, but he had not proposed his amendment without serious consideration, and he had heard nothing in the course of the discussion to induce him to alter his mind. He must say, also, he regretted that a vote had not been taken on the scheme as it stood, without any alterations being suggested. It had been stated that the character of the examinations as a whole had not been altered, but his complaint was that so much of the Major had been imported into the Minor as to render it much more difficult. He could not for one moment agree with Mr. Savage, that rendering the examinations more difficult would remove the difficulty of getting apprentices, for he was convinced the result would be quite the reverse. In conclusion, he desired to add that he yielded to no one in his respect for the Board of Examiners, who had no doubt prepared what in their judgment was an improved scheme, but he could not agree in the expediency of introducing it at the present time.

The amendment was then put to the vote, with the following result:—

For—Messrs. Frazer, Hampson, and Owen.

Against—Messrs. Atherton, Baynes, Betty, Bottle, Greenish, Haselden, Hills, Ridley, Sandford, Savage, Schacht, Shaw, Stoddart, Sutton, Urwick, and Williams.

The amendment was therefore lost.

Mr. Schacht's motion was then put in this shape:—

"That the proposed amended regulations of the Board of Examiners, with the accompanying slight alterations, and the omission of all words relating to fees, be adopted."

The vote being taken, gave the following result:—

For—Messrs. Atherton, Baynes, Betty, Bottle, Greenish, Haselden, Hills, Ridley, Sandford, Savage, Schacht, Shaw, Stoddart, Sutton, Urwick, and Williams.

Against—Messrs. Frazer, Hampson, and Owen.

The resolution was therefore carried.

The AMENDED REGULATIONS are as follows:—

(N.B. New regulations are printed in black type; old ones now omitted are in brackets; the Major examination being considerably altered, we have given both sets of regulations.)

"Regulations of the Board of Examiners, for the Examining and Registration of Pharmaceutical Chemists, Chemists, and Druggists, and Apprentices or Students, in accordance with the Pharmacy Acts, 15 & 16 Vict. cap. 56; 31 & 32 Vict. cap. 121; and 32 & 33 Vict. cap. 117.

"The Board of Examiners in London meets for conducting the Minor and Major examinations every month, except in August and September.

For the Modified examination, the Board meets as often as required. Candidates must give notice to the Registrar of their intention to present themselves and pay the fee, on or before the first of the month in which the examinations are held.

"The Board of Examiners in Edinburgh meets for the Major, Minor, and Modified examinations as often as required. Notice is given in the PHARMACEUTICAL JOURNAL when meetings take place.

"Secretary to the Board in Edinburgh, John Mackay, 119, George Street, Edinburgh."

#### "THE FIRST OR PRELIMINARY EXAMINATION."

(For Registration as Apprentices or Students.)—This examination is held throughout Great Britain on the first Mondays in January, April, July, and October in every year. Candidates for this examination must give not less than ten clear days' notice.

"The examination is a written one and comprises

Latin—translation into English of a paragraph from the first book of Cesar ('*De Bello Gallico*'), or a passage from each of the following works: Pereira's 'Selecta e Prescriptis,' and the last edition (Latin) of the London *Pharmacopœia*.

Latin Grammar.

English Grammar, Composition.

The first four rules of Arithmetic, simple and compound, Vulgar Fractions, and Decimals, and a thorough knowledge of the British Metrical system of Weights and Measures.

"In the case of candidates residing in the country and unable to attend in London or Edinburgh, the Register shall send the questions, under seal, to the person appointed to superintend the writing of the answers, with instructions that they be opened by him in the presence of the candidates, who shall write the answers forthwith in his presence in a given time.

#### "MINOR EXAMINATION."

(For registration under the Pharmacy Act, 1868, as chemists and druggists.)

"Candidates for this examination must have passed the First or Preliminary examination, and must produce certificates of having attained the full age of twenty-one years, and also of having been employed for three years by a pharmaceutical chemist, or chemist and druggist, and in dispensing and compounding prescriptions.

"The following form the subjects of examination:—

"Pre-scriptions.—The candidate is required to read without abbreviation auto-graph prescriptions; translate them into English; and render a literal as well as an appropriate translation of the directions for use. To detect errors, discover unusual doses, and have a general knowledge of posology; also to render in good Latin ordinary prescriptions written in English.

"Practical Dispensing.—To weigh, measure, and compound medicines; write the directions in concise language in a *natural* distinct hand; correctly translate the prescriptions and detect unusual doses; to finish and properly direct each package.

"Pharmacy.—To recognise the preparations of the *Pharmacopœia* which are not of a definite chemical nature, and have well-marked physical characters, such as extracts, tinctures, powders, etc.; [To describe the composition of such as are compound] to give the proportions of the active ingredients. [The candidate is required to possess a practical knowledge of the metrical system of weights and measures] and possess a practical knowledge of the processes, and the principles of the processes by which they are made, and of the best excipients and methods of manipulation for forming emulsions, pills, etc.

"Materia Medica.—To recognise specimens of roots, bark, leaves, fruits, resins, gums, animal substances, etc., used in medicine; give the botanical and zoological name of the plants, etc., yielding them, and the natural families to which they belong; name the countries and sources from which they are obtained, the official preparations into which they enter, and judge the quality and freedom from adulteration or otherwise of the specimens.

"Botany.—To recognise the more important indigenous plants used in medicine. To possess a general knowledge of the elementary structure of plants, and the structure and distinctive characters of roots, stems, leaves, and their parts. To name and describe the various parts of the flower.

#### NEW FORM

"Chemistry.—To recognise the ordinary chemicals used in medicine.

To possess a practical knowledge of the processes by which they are produced, the composition of such as are compound, and explain the decompositions that occur in their production and admixture, by equations or diagrams. To determine practically, by means of tests, the presence in solution of the chemicals in common use, and explain the reactions which occur in each case. To possess a general knowledge of the laws of chemical philosophy, and a practical knowledge of the means of determining specific gravities, densities, and temperature, and of the instruments appertaining thereto, and the physical and chemical constitution of the atmosphere."

#### OLD FORM

"Chemistry.—To recognise the acids, oxides, salts, and other definite chemical bodies of the *Pharmacopœia*; to describe the processes by which they are produced, the composition of such as are compound, and explain the decompositions that occur in their production and admixture, by written equations or diagrams."

"Certificates of having passed the Local Examinations of the Universities of Oxford, Cambridge, or Durham, the Examination of the College of Preceptors; or those fairly legally constituted examining body previously approved by the Council, provided Latin and Arithmetic be included in the subjects, are accepted in lieu of this examination.

"The Council have appointed the Local Secretaries to undertake this duty.

## MAJOR EXAMINATION.

## New Form.

"(For registration as Pharmaceutical Chemists under the Pharmacy Act, 1852.)

" Candidates for this examination must have passed the 'Minor' examination at least three months previously.

" *Materia Medica.*—This comprises a practical knowledge of the methods of estimating the value of important drugs, of obtaining their active proximate constituents in a separate state; of identifying them and ascertaining their purity or impurity by tests.

" *Botany.*—This comprises an intimate acquaintance with the parts of the flower, fruit, and seed; the functions and mode of arrangement of the different organs of plants; a knowledge of the general principles of classification, and of the Linnaean and De Candolle's systems; [a written diagnosis of the following natural orders.] The Candidate must be able to distinguish practically between each of the following natural orders:—Ranunculaceæ, Papaveraceæ, Cruciferæ, Malvaceæ, Leguminosæ, Rosaceæ, Cucurbitaceæ, Umbelliferæ, Composite, Gentianaceæ, Convolvulaceæ, Solanaceæ, Atropacæ, Labiateæ, Scrophulariacæ, Polygonacæ, Euphorbiacæ, Orchidacæ, Iridacæ, Liliacæ, Melanthiacæ, Graminacæ; and refer to their respective Orders such specimens as may be shown to him.

" *Chemistry.*—This comprehends an intimate knowledge of the laws of chemical philosophy, a practical knowledge of the nature and properties of the elements and their compounds, both organic and inorganic, especially those used in medicine or the arts. The different combinations and decompositions must be explained by equations; also the qualitative analysis of the more important chemicals, e.g., nitrates, chlorides, carbonates, sulphates, phosphates, oxalates, tartrates, etc., and the detection of impurities in them, and the volumetric estimation of the strength of all pharmacopeia preparations in which standard solutions are ordered to be used.

" An elementary knowledge of the properties of light, heat, electricity, and magnetism is also required."

To come into force, October, 1874.

Melanthesæ, Graminacæ; and the reference to their respective Order, of such specimens as may be shown to him.

" *Chemistry.*—The examination comprehends the laws of chemical combination, the nature and properties of the chemical elements and their compounds, especially those used in medicine or applied generally in the arts, explaining the different combinations and decompositions, by written equations or diagrams. The determination practically, by means of tests, of the constituents of salts, the detection of impurities in medicinal chemicals, and the volumetric estimation of the strength of Pharmacopeia preparations.

" The Candidate will be required to name the antidotes to be administered in cases of emergency, for the more ordinarily occurring poisons, and give a method for detecting the presence of them after death in the different parts of the body.

" An elementary knowledge of the properties of Light, Heat, Electricity, and Magnetism is also required."

## EXAMINATION FEES.

Mr. WILLIAMS moved, and Mr. URWICK seconded a resolution—

"That the consideration of the fees to be paid in future by candidates at examinations be remitted to the Parliamentary Committee."

This was put and carried.

On the motion of Mr. WILLIAMS, the names of Messrs. Fraser, Greenish and Urwick were added to the Parliamentary Committee.

## BENEVOLENT FUND.

The Report of the Committee was received and adopted. It stated that the Secretary had received a communication from the executors of Mrs. Jane Lyons, of Albert Terrace, Knightsbridge, stating that that lady had left a legacy of £500, free of duty, to the Benevolent Fund. It also recommended the grant of £10 to the widow of a late attendant on the Benevolent Fund.

## MAJOR EXAMINATION.

## Old Form.

"(For Registration as 'Pharmaceutical Chemists' under the Pharmacy Act, 1852.) Fee Five Guineas.

" Candidates for this examination must have passed the 'Minor' examination at least three months previously.

" *Prescriptions and Posology.*—The candidate is required to render in good Latin prescriptions written in English, to detect errors, and discover unusual doses.

" *Practical Dispensing.*—The candidate is expected to possess a knowledge of the strength of the simple solutions used in medicine, and of the best excipients and methods of manipulation for forming emulsions with oils, resins, balsams, and other substances, and for giving a good pilular condition to substances which are administered in that form; and to explain the changes which sometimes occur in prescribed medicine.

" *Pharmacy.*—To describe the process by which any preparation of the Pharmacopœia, not having a definite chemical composition, is made; to explain the nature of maceration, percolation, sublimation, etc., and to acquaint with published improved pharmaceutical processes."

" *Materia Medica.*—The examination extends to the qualities of drugs, the means of estimating these qualities, and of distinguishing the genuine from spurious. It comprises a knowledge of the active proximate constituents of important drugs, and of the methods of obtaining these in a separate state, and testing their purity.

" *Botany.*—This examination comprises an intimate acquaintance with the parts of the flower, fruit, and seed; the functions of the different organs of plants; a knowledge of the general principles of classification, and of the Linnaean and De Candolle's systems; [a written diagnosis of the following natural Orders:—Ranunculaceæ, Papaveraceæ, Cruciferæ, Malvaceæ, Leguminosæ, Rosaceæ, Cucurbitaceæ, Umbelliferæ, Composite, Gentianaceæ, Convolvulaceæ, Solanaceæ, Atropacæ, Labiateæ, Scrophulariacæ, Polygonacæ, Euphorbiacæ, Orchidacæ, Iridacæ, Liliacæ, Melanthiacæ, Graminacæ; and refer to their respective Orders such specimens as may be shown to him.

" *Chemistry.*—The examination comprehends the laws of chemical combination, the nature and properties of the chemical elements and their compounds, especially those used in medicine or applied generally in the arts, explaining the different combinations and decompositions, by written equations or diagrams. The determination practically, by means of tests, of the constituents of salts, the detection of impurities in medicinal chemicals, and the volumetric estimation of the strength of Pharmacopeia preparations.

" The Candidate will be required to name the antidotes to be administered in cases of emergency, for the more ordinarily occurring poisons, and give a method for detecting the presence of them after death in the different parts of the body.

" An elementary knowledge of the properties of Light, Heat, Electricity, and Magnetism is also required."

## LADY STUDENTS.

Mr. HAMPSON moved in accordance with notice—

"That lady students attending the classes or lectures are eligible to compete for the Sessional Prizes and Certificates, and for all prizes and scholarships given for proficiency in this Institution."

He would not weary the Council by adducing self-evident reasons in support of the claim of the lady students, for he thought a moment's reflection would decide every one to vote unanimously in favour of it. The professors, as well as the present and prospective lady students, were waiting the decision of the Council of the Society, and to refuse them the same privileges as gentlemen, after so freely admitting them to the lectures, would be to deceive, disappoint, and use most unfairly those who were entitled to fair play, impartial treatment, and courtesy.

Mr. SCHACHT said he was very happy to second the resolution, but he thought the latter clause must be omitted, as it would include the Bell Scholarship, which, as it included laboratory instruction, was already decided against by the previous vote of the Council.

Mr. HAMPSON said he would confine the resolution to sessional prizes and certificates.

Mr. SANDFORD said the students could already claim certificates by law.

Mr. HILLS said he was at the Royal Academy on the previous night, when he found a large number of young ladies and young gentlemen studying together with no difficulty whatever being apparent. There were many large establishments in London where both sexes were thrown together without any disadvantage.

Mr. BETTY said this was a very important question, and he should like to ask the mover and seconder of the resolution if they had any ulterior object in view, or if they merely confined it to the resolution proposed. If so, he should have no objection to vote for it; but if it was meant as an encouragement to the ladies to enter the business, he should contest it as a matter of principle and expediency.

Mr. SCHACHT said he would candidly state that he meant what was contained in the resolution, and nothing more. The future would take care of itself.

Mr. BOTTLE called attention to the existing regulations as bearing on the matter. Mr. Hampson's resolution proposed to throw open the door to ladies to compete for everything which the Council had to give away. Now, however, it was proposed to withdraw the Bell Scholarships; and it would be found on referring to section 4 of the Rules and Regulations for Prizes, that the "Prize of Books" and "the Pereira Medal" could only be given to associates or registered students of the Society. He took it that ladies who were permitted to attend the lectures on botany and chemistry were not associates, and consequently were not entitled to compete for these prizes. He had no objection to ladies attending the botanical classes and receiving the prize which entitled them to admission to the Royal Botanical Society's Gardens; but with regard to the other prizes, much as they might desire to be generous to the female sex, they must not forget to be just towards the male. Now it must be remembered that the ladies who entered for the chemical or botanical lectures would probably be able to devote a great deal more time to them than young men who were at work in the laboratory as well, and it would be hardly fair to the latter to put them on the same footing with a young lady who had nothing whatever to do but study the particular subject in which she wished to gain a prize. He had, therefore, sketched out an amendment which he thought would meet the case, to the effect—

"That lady students attending the chemical or botanical lectures are entitled to receive certificates of such attendance, but are not eligible to compete for the prizes now offered by this Council, and that it be referred to the Library, Museum and Laboratory Committee to consider and report upon the expediency of offering special prizes to be competed for by lady students."

Mr. STODDART said he would second the amendment. One reason in favour of altering the bye-laws was, that in his opinion the Herbarium prize ought to be restricted to those actually engaged in the business. It was impossible for a young man in business to compete on fair terms with another who had the whole of his time at disposal.

Mr. HAMPSON said he had certainly counted on Mr. Bottle's support, knowing him to be both just as well as generous. With regard to lady students attending only one or two classes, and therefore being able to concentrate their energy on the particular subjects they studied, it must be remembered that the same argument applied to gentlemen students, but no alteration of the rule was made to meet their ease. Of course lady students would be ineligible to compete for prizes which were restricted to associates, and that he did not propose to deal with. He believed, however, that one lady was already an associate, and no doubt one or two more would become so. Lady students did not want special prizes, but the opportunity to compete with male students under precisely similar circumstances. The law permitted ladies to become chemists and druggists, and therefore, in the interests of pharmacy and common sense, they ought to grant them the same privileges as male students.

Mr. SANDFORD thought it was a mistake to suppose that any lady was an associate.

Mr. HAMPSON said he referred to a lady who had passed the preliminary examination.

Mr. SANDFORD said that was another matter.

The PRESIDENT said the sessional prizes and certificates were open to all students, and were not restricted to associates.

Mr. HILLS thought the subject required a good deal of consideration, and though he did not wish to be so un-gallant as to vote against the ladies, he should like to give the matter more consideration before he could vote for the resolution. He therefore hoped that consideration would be deferred for another month or so.

Mr. SHAW said this question of female pharmacy was constantly coming forward, month after month, which he thought was a very great pity, and should much prefer they should come at once to some decision with regard to it. Referring to the Act of Parliament, there were several clauses in which the term "person or persons" occurred, and it must evidently be meant to include both sexes, and it had already been so determined with regard to the registration of females who were in business prior to 1863. According to the bye-laws, he considered that ladies were eligible to be elected as associates if they passed the proper examinations; and if that were so, they were not placed on a fair footing if the opportunities of studying were not placed at their disposal, and the same advantages given to them as to the other sex. There might be many circumstances in which it would be proper and desirable that females should study pharmacy.

Mr. UNWICK saw no objection to Mr. HAMPSON's resolution, and thought the fact of ladies competing for the prizes would stimulate young men.

The PRESIDENT thought it would be very hard if a lady like Mrs. Garrett-Anderson were allowed to compete and take away the prizes from the other students.

Mr. HAMPSON said Mrs. Anderson did not propose to come there herself, but she applied on behalf of the lady students.

After some further discussion, Mr. HAMPSON said in the interest of the ladies themselves, and also of the better reason of some of the members present, he would withdraw the resolution for a time.

The report and recommendations were received and adopted.

A letter from Professor Attfield was also read suggesting the desirability of appointing an Assistant Demonstrator in the Laboratory, in consequence of the great number of students at present engaged. After some conversation, it was resolved that a temporary engagement be entered into for three months only, and that Mr. Sherstone, one of the Junior Bell Scholars of last session, be offered an appointment for that period.

#### PARLIAMENTARY.

The Report of the Parliamentary Committee was read, advising, amongst other things, the taking of proceedings against several persons who, it was alleged, had infringed the provisions of the Pharmacy Act with regard to the sale of poisons, &c. It also contained correspondence with the solicitor, reporting the proceedings which had been already taken in cases previously under consideration. The Report was received and adopted.

#### GENERAL PURPOSES.

The Report of this Committee was received and adopted.

#### REPORT OF THE BOARD OF EXAMINERS.

November, 1872.

#### ENGLAND AND WALES. Candidates.

Examination.	Examined.	Passed.	Failed.
Major . . . .	5	4	1
Minor . . . .	65	39	26
	70	43	27

Certificates received in lieu of the Preliminary Examination:—

Society of Apothecaries	:	:	:	:	:	1
University of Cambridge	:	:	:	:	:	3
Oxford	:	:	:	:	:	1
College of Preceptors	:	:	:	:	:	2-7

#### CIVIL SERVICE CO-OPERATION.

A SPECIAL meeting of the Metropolitan chemists and druggists was held at the offices of the National Chamber of Trade on November 26 to take further measures to check, as far as possible, the co-operative movement. The meeting was well attended, including prominent members of both branches of the trade, and was presided over by Mr. Haselden, who stated that his action upon the occasion was to be regarded as devoid of official character as President of the Pharmaceutical Society. The chief matter of discussion was the wholesale supply question, and various suggestions were put forward as to the most desirable and effective means of inducing wholesale firms to refrain from supplying co-operative stores. Mr. Haselden expressed his opinion that the trade in respect of this matter had a right to expect every consideration from the quarter referred to, and he suggested that it would be advisable to send a letter to each firm requesting the abstention of dealings with co-operative companies. Others recommended a more decided application of the screw, and there seemed to be a strong feeling that there was a right to demand rather than to ask such a concession. But Mr. Carteighe combated these opinions, and pointed out that the only justifiable consideration that could be brought to bear must be of a moral rather than of a coercive nature.

He moreover demonstrated that it would be an almost impossible matter to cut off the supply of drugs, &c., from the stores, as in the event of the existing and well-known houses refusing to supply them, other firms would immediately spring up with the express purpose of doing so. Reference was made to one large firm which had lost its London trade in consequence of the fact becoming known that it delivered goods to the stores; but, as a set off, Mr. Carteighe mentioned that its position was absolutely bettered by such loss, as nearly the whole of the co-operative supply, had become concentrated in its hands. A gentleman who announced his advent from the far east (literally construed Mile End) enveighed bitterly against the wholesale men, and stated that a certain firm was in the habit of supplying grocers, oilmen, &c. at one-third the price it supplied the trade in his vicinity. If undeniable proof of this assertion can be afforded, we hope to be favoured with the name of the firm in question. Finally the meeting adopted the resolutions appended, Mr. Haselden withdrawing his proposed letter in favour of the first one.

1st. Moved by Mr. Crispe, and seconded by Mr. Hemingway, "That this meeting use every endeavour in its power to induce the wholesale houses not to supply the co-operative stores, and solicit their assistance in support of the retail trade."

As corollary to the above, it was moved by Mr. HAMPSON, and seconded by Mr. Greenish, "That a copy of the foregoing resolution be sent to all wholesale houses and manufacturers supplying the retail trade." It should be mentioned that the action of Messrs. Howards, of Stratford, who by circular have repudiated all dealings with co-operative stores, was favourably commented on by the Chairman. We commend their straightforward disclaimer to the notice of other firms.

A very full and important meeting of metropolitan tradesmen was held in Willis's Rooms on the 1<sup>st</sup> inst. to consider this question.

The meeting was held under the auspices of the National Chamber of Trade, and was in every sense a great success. Sir Thos. Chambers, Q.C., M.P., presided, and there were present W. M'Arthur, Esq., M.P., T. O. Wethered, Esq., M.P., the Hon. Arthur Kinnauld, M.P., W. T. M'Cullagh Torrens, Esq., M.P., Captain Warner Dennis, Morgan Howard, Esq., Dr. Peirce, and many of the chief tradesmen of Loudon, with a good sprinkling from the provinces.

The SECRETARY read letters from W. H. Smith, Esq., M.P., Mr. Alderman Lawrence, and H. W. Peek, Esq., M.P., the latter gentleman expressing regret that he could not attend, having to take the chair elsewhere, and stating that the subject of Civil Service trading was one in which he took great interest, as being important to tradesmen, and the more it was calmly ventilated the better.

The CHAIRMAN said he had been asked to take the chair on that occasion because he represented one of the largest constituencies in the empire. He was supported on his right by another metropolitan Member (Mr. Kinnauld), who also represented one of the largest constituencies in the empire, and they had letters of apology from other gentlemen who represented important constituencies; and if any justification were wanted for the calling of such a meeting as this it was found to be completed in the names which had been mentioned, and which must be considered to be representative, having in regard the public position of these gentlemen. (Cheers.) No matter whether the grievance was well or ill-founded if it were felt it was justifiable that a meeting should be called for the purpose of discussing it. Recently he had put two questions to the Chancellor of the Exchequer, in the House of Commons, about this matter. The Chancellor of the Exchequer had said in reply that there was a Treasury minute in existence which prohibited the servants of the Crown from engaging in business which interfered with their other duties. Remembering these facts they were certainly justified in making the inquiry whether the thing that was being done was in accordance with right principle and true justice. (Applause). Then as to the magnitude of the question, it ought to be of great magnitude to justify such a gathering as this; and great as this meeting was, he scrupled not to say that the greatness of the question justified it. He would put the matter in a few sentences. He took first the Civil Service Supply Association (Limited)—that was, in liability, not in trading;—(laughter)—their whole returns in 1867 were 21,322L. For the half-year ended February 29, 1872, the amount was 348,324L. 1s. 10d., or at the rate of 696,647L. per annum. ("Shame.") If it was right and just that this sort of competitive trading should be carried on—if it was done on right principles, with right motives, and to a right end, the 700,000L. a year was a thing upon which all parties ought to be congratulated; but if these things were not true—and there was serious ground for complaint—if this was a violation of the principles of free trade, then it deserved inquiring whether the 700,000L. a year returned under these circumstances by these parties was a thing at which they ought to be pleased or angry. Granted that A and B and the rest of the letters of the alphabet might agree together to supply themselves from wholesale stores, that did not touch this question. This was a case of a comparatively few public servants provided for by quarterly and monthly salaries, having great advantages in their favour, trading in opposition to the ordinary tradesmen of the country. Trading as they did in the manner complained of by that meeting, it could not be considered co-operation in the legitimate sense of the word; it was a conspiracy. (Great applause.) The advocates of the system did not put it as though it were co-operation; they said they started these associations as self-protection against the unfair charges on the part of tradesmen; but whether this was true or not, it was important to distinguish that they had not pretended to justify this Civil Service trading on the ground that it was co-operation, but as a piece of retaliation or revenge. (Cheers.) Was there not, then, reason to complain? (Cheers.) The Civil Service trading was not legitimate co-operation; it was factitious and fraudulent trading. (Hear, hear.) And let him tell them what he understood to be the fundamental principle of trade. If a man is a manufacturer he is bound to sell at a price which shall pay the cost of labour, material, the wear and tear of machinery, rent of building and land, and other incidental expenses, and leave him a living profit; if a man be a merchant he is bound to sell at a price which pays the cost of transit, the price of material, the cost of insurances and casualties which may arise, and leave him a living profit; if a man be a distributor of these goods amongst the millions

of the population of this country, he is bound to sell his goods at a price which pays for the carrying on of the business, and leaves him a living profit. (Cheers.) The neglect or violation of these principles meant nothing less than first universal fraud and then universal bankruptcy. (Cheers.) The moment a man traded at a loss without this living profit he traded viciously and wrongly. Some time since he (Sir Thomas Chambers) went into a shop to buy an article, when the shopkeeper assured him that he was selling it at less than cost price. He (the speaker) then immediately refused to buy it, and walked out of the shop. (Cheers.) He might allude to a few of the peculiarities of the system adopted by the Civil Service traders. To compete with the grocers they traded at a loss of 1200L.—(shame)—and they laid it on in wines. (Laughter.) It might be fair to sell absolute necessities—for grocery could he be called—at a very low figure, or no profit at all, and get the difference out of luxuries; but these Government traders put themselves out of the pale of this, for they shut out the poor who wanted the groceries. Their larger customers with a large establishment wanted a large quantity of groceries in the servants' hall and in the kitchen; but he did not think these customers would buy their wine at the Civil Service stores, for it was the middle-class men who were just able to buy Africau sherry, and get it at the stores. These things were assuredly not honest. (Cheers.) The system was unfair, and it could not go on. There would be ill-feeling engendered between class and class: between the Civil Service and that great class of useful servants of the empire—the retail traders. (Applause.) But the grievance ought not to be allowed to go to this extent. The Government ought not to allow it. He concluded by saying that so long as this was an open controversy, and he perceived that there were matters which ought to be raised and settled in a manner which should be satisfactory to the whole community, so long were his services entirely at their disposal.

The Chairman then resumed his seat amidst enthusiastic and continued applause.

The Hon. A. KINNAULD, M.P., in rising to propose the first resolution, said that he had the most cordial sympathy with the object that had brought them together. The resolution he had to propose was as follows:—

That this meeting considers that the system adopted by the so-called Civil Service co-operative societies in trading largely with the general public is contrary to sound policy, and should be prohibited by the Government.

After the exhaustive speech by the Chairman it was unnecessary for him to fully go into the terms of this resolution. There were a few points, however, which he might touch upon. The Civil servants being employed by the Government, it was natural to suppose that they were acquainted with matters connected with Government contracts, and might use this information to the detriment of the traders whom they opposed. (Cheers.) Was it fair that they should have this advantage? He was in favour of free trade, but he contended that this was contrary to the principles of free trade, and that it was protection in its worst form. (Cheers.) He liked to call a spade a spade—was this a co-operative society which had been started by the Government *employés*? (Cries of "No.") He had no objection to the Civil servants starting a society to supply themselves, for they had a right to do so; but it became a very different thing when this Association, instead of confining itself to members of the Service, dealt generally with the public, and under the sanction of the name of a friendly society evaded the burden of taxation which the tradesmen had to pay. (Cheers.) He quite believed that the poorer members of the Service did not derive advantages from this society. Taking the Long-aere, Monkwell-street, and Bedford-street stores, he found that the total number of shareholders was 2801; tickets to members of the Civil Service 3063, but to the public, nobility, gentry, and their friends the number was no less than 14,966. (Cries of "Shame.") Even this, however, did not represent the full number. Some of these nobility and gentry lent their tickets to friends, and this 15,000 might be safely multiplied by three, and yet he within the limits. It was certainly the duty of Government as far as they could interfere in this matter. In moving this resolution he had only to say that so far as he was concerned he should be glad to co-operate in every possible way to promote the object they had in view. (Applause.)

Mr. HAZELDEN seconded the resolution with great pleasure, because he felt that the time had come when something must not only be said but done in this matter. He thought this resolution was a step in the right direction. The system of trading as adopted by the Government servants was an evil

which they must all deeply desire to see remedied—(hear, hear)—and there was one point which he had not yet heard touched upon. This system of trading was unfair in one way, inasmuch as it only affected certain tradespeople—other tradespeople were not directly affected by it. These stores affected most particularly all those traders who dealt in dry goods and preserved goods—viz., the grocer, the oil and Italian warehouseman, the chemist, stationer, milliner, and he believed also the tailor. But it did not affect the greengrocer, the fruiterer, the butcher, the fishmonger, and others of different descriptions. These knowing gentlemen of the Civil Service were too wise in their generation to deal in articles of a perishable nature, and thus the injustice was increased, because if they traded under the same conditions as the ordinary tradesman the more shops they opened the better, for the sooner would they be shut up. He could only liken the Civil Service system of trading to the income-tax; it seemed to be generally unsatisfactory. (Cheers.)

Dr. PIERCE supported the resolution, remarking that it might appear strange that he, not a trader, should take an interest in this question; but he was of opinion that it extended beyond the mere character of a trade question. He found that about 20,000 tickets had been issued by the two so-called Civil Service Co-operative Societies, and these tickets represented an annual dealing of 50*l.* each or per family, for he must draw their attention to the fact that the sum of 600,000*l.* which had been named did not include the three warehouses which were carried on under the auspices of the Civil Service, and to an amount which exceeded 1,000,000*l.* sterling annually. He would give them a few instances of how gentlemen receiving large salaries from the Crown also derived good incomes from these stores. The Director-General of Stores in the India Office, who received a salary of 1200*l.* per annum, derived an income from the trading association of 315*l.* in addition; a gentleman in the Admiralty, whose salary was 520*l.*, was Managing Director of the Civil Service Co-operative Society, and received 630*l.* in addition; the late Treasury Magistrate at Lambeth, with a salary of 500*l.* a year, derived 210*l.* from these stores. The Chancellor of the Exchequer did not satisfactorily answer the questions which had been put to him about this matter. He was in the swim. (Laughter and cheers.) If a Treasury minute were not sufficient, let the tradesmen of this country demand that something should be done in the matter.

The CHAIRMAN then put the resolution to the meeting, and it was unanimously carried.

Mr. LEWIS (Cardiff) moved the next resolution:—

That the Treasury Minute of March 27, 1849, being insufficient, the Government be urged to introduce a Bill into Parliament to prohibit salaried servants of the Crown from becoming active members of trading companies.

The tradesmen, he said, were not fairly treated in this matter. Legislation for the past twenty years had tended in two directions—for the benefit of the working classes and the upper ten thousand. They had done everything to educate the masses, and for the upper ten they had thrown open our national colleges; but as for a middle-class school, where could a tradesman send his children for a good education? The Government had not assisted them, but if there was a disturbance in the country which added to the income-tax, the tradesmen were relied upon as contributing largely to the revenues of the country. (Cheers.) He believed that by this meeting they had lit a match in London which would go on burning until every town in the country caught the flame, and this question would assuredly become a national question. He regretted to see that some men who had hitherto borne honoured commercial names in London were in league with the co-operators,—they allowed a discount to those holding Civil Service tickets. To give an instance—if his wife went into a shop and purchased 10*l.* worth of goods, and another lady bought another 10*l.* worth, his wife paid down 10*l.* for her articles, while the other lady, by presenting a ticket from the Civil Service, only paid 9*l.* Surely there was no commercial morality or common honesty in this. Tradesmen embarked their capital in their business, and exerted what talent and energy God had given them; they did not strike for the nine hours movement. (Cheers.) If a tradesman failed, what was the consequence?—his name went down to posterity with a stigma attached to it. But if these societies failed, this was not the case. They were wound up, and were forgotten for ever; no stigma attached to them. This was certainly not fair. Tradesmen wanted no monopoly, but fair competition.

Mr. R. ATTENBOROUGH seconded the resolution.

The resolution was put to the meeting and unanimously carried.

Mr. JONES proposed the next resolution. He said if this principle were not checked it would go on more; and therefore they stood that night fighting for their lives, fighting for their property, fighting for all the Government could do for them, and by which these Civil servants were employed. (Cheers.) They (the tradesmen) must not be content with merely receiving blows; they must do like the Germans did, they must carry the war into the enemies' territory. (Applause.) They could say conscientiously that they had not provoked the battle; but now that the battle was begun let them be firm, let them not institute a work and drop it, but stick to it. With regard to the payment of the Civil servants, he reckoned that thirty-two clerks in the Treasury (he left out Mr. Lowe with his 5000*l.* a year) divided amongst themselves 24,000*l.* a year, in addition to superannuation allowances. In the Inland Revenue Office he found also that sixty-three clerks divided amongst themselves 24,000*l.* a year. He contended that these men were paid most disproportionately to their talent and the nature of their labour, and were paid much higher than the ordinary standard of the labour market. In conclusion he moved—

That, it being evident that the Civil servants are at present unequally and inadequately employed, this meeting is of opinion that Parliament should not sanction any increase to their pay until a complete re-classification of the public servants, and a revision of their hours of employment, has been made, with a view to the reduction of the number employed, and their fair and proper remuneration.

Mr. R. HANSON seconded the resolution. He thought they were all agreed that the payment to Government clerks was excessive. The impression was that the Civil servants were paid higher than others because they were required to be men of honour and integrity, in whom they could confide. This view was supported by a writer, Mr. Ewald, himself a Civil servant, who said that the duties of the Civil Service clerks were such as to offer opportunities to unscrupulous clerks to turn to pecuniary advantage by dishonest means. They were therefore paid liberally—far above the market value of the easy work they had to do,—because they should be worthy of confidence in their positions. Now, however, it was found they violated this confidence—(cheers)—and engaged in trade, thus doing harm to the great body of the taxpayers of the country. They had broken their part of the contract, and as they had derogated from their position, it behoved them (the tradesmen) to see that they were only paid the fair market value for their labour. (Cheers.) Mr. Lowe had said that he had no right to dictate to the Civil servants as to what they should do after office hours so long as they did their work properly, and that they could reasonably write books or edit reviews. It would no doubt be recollected that some years ago, when a certain scandal arose in the Court of Bankruptcy, the Lord Chancellor dismissed an official assignee for engaging in business; and an anecdote was recently published of Lord Palmerston, who told one of his subordinates, who was fond of playing harlequin after the business of the day was over, “One more spangle, and you leave the office!” (Laughter.) The War-office had published a memorandum stating that no clerk would be permitted to engage in any business without the permission of the head of his office; and the Custom-house prohibits, under pain of instant dismissal, any one there engaged from dealing in exciseable articles, though this rule did not seem to have been enforced against the numerous Custom-house clerks connected with the various Civil Service stores. These instances proved the power of the higher authorities to put a stop to the trading complained of by that meeting; but if Mr. Lowe considered that his power was not sufficiently large, then Parliament must be asked to strengthen his hands, so that there may be no doubt on the subject.

Mr. DERAG briefly supported the resolution, expressing his sympathy with the objects of the meeting.

The resolution was unanimously carried.

Mr. BLACKWELL (Crosse & Blackwell) moved the next resolution. In doing so he said they must bring their individual interest to bear upon Members throughout the country, and also upon those who were desirous of becoming Members. Before a candidate was returned to Parliament his views upon this question ought to be ascertained, and he (Mr. Blackwell) had no doubt they would secure the great majority of these gentlemen on their side. (Cheers.) At the late elections at Dover, Tiverton, &c., the candidates pledged themselves to oppose Civil Service trading. In conclusion, he moved—

That the foregoing resolutions be printed, and sent to each Member of Parliament.

Mr. LORD seconded the resolution.

Mr. DANIEL then moved, and Mr. ATTENBOROUGH seconded, a vote of thanks to the Chairman, which was most enthusiastically carried.

The CHAIRMAN having responded, the meeting terminated.

On Monday a deputation of tradesmen of the borough of Finsbury waited upon Mr. M'Cullagh Torrens, to solicit his aid in regard to inducing the Government to prohibit Civil servants from trading with the general public. The reply of Mr. Torrens was most favourable, and he promised to do all he could to assist the deputation.

**DOING EVIL THAT GOOD MAY COME.**—The London correspondent of the *Manchester Guardian* has information that Mr. Henry Ancell, of the Admiralty, has resigned the position of manager of the Civil Service Co-operative Society, on his appointment by Mr. Goschen to a chief clerkship of £850 a-year at Somerset House, upon the condition that he gave up his co-operative appointment. Mr. Ancell was the principal promoter of the stores in the Haymarket.

#### SEASONABLE NOVELTIES.



CHRISTMAS is close upon us again, and notwithstanding all its cares and all its crimes, the great Anglo-Saxon world prepares to make merry. And what a preparation that is! not to speak of the merry-making itself. The Christmas dinner is a feast which demands nobody knows how much forethought, and which extends its shadow over several weeks previously, and sometimes also into several weeks subsequently. But

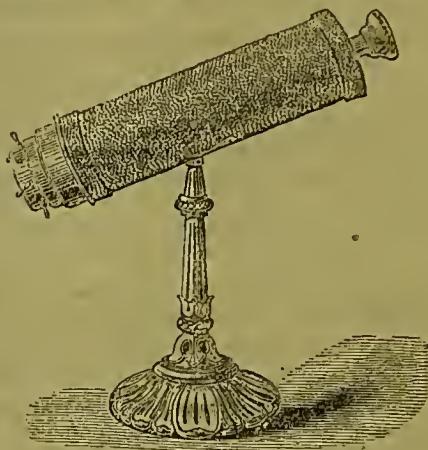
the Christmas party, the Christmas greetings, the Christmas presents, all these outlets to our superabundant flow of human nature which reaches flood-tide at this season, all these must be prepared for, too. There are the little children; and there are always some new ones every Christmas; they must have a merry time of it; it is a Christian duty to make them love this season. The day may be tinged by sorrowful memories for some of the elder ones, but the gloom must be forgotten, or at least veiled, for the sake of the little ones. And that is only one of the Christmas duties. Flinty-hearted, discontented, avaricious, sordid, mean, sour, cynical, and disagreeable, generally, we will not be so on December 25th; nor, if an Act of Parliament can prevent it, on December 26th either. Old Scrooge is dead now, as dead as Marley was before him; Dickens killed him.

It is almost sacrilege to introduce commercial matters among our meditations on Christmas, but they are a very important element. Business, after all, is the skeleton on which and within which, flesh and blood hang and circulate, and we therefore proceed to give our readers the results of our investigations concerning the novelties for this season.

#### THE STEREOSCOPIC COMPANY.

From this inexhaustible mill of genius we have, this year, the most charming novelty which even the Stereoscopic

Company has ever introduced. That, at least, we express as our own opinion. It is called the New Jewel Kaleidoscope, and is figured in the accompanying sketch. There is a novel arrangement in the mechanism of this instrument,



whereby it is provided that every turn of the wheel shall produce a new design of perfect symmetry and of extreme beauty. Instead of rough pieces of glass, choice objects are employed, embracing brilliant gems, or at any rate excellent imitations, and also some tubes of coloured liquids which produce an undulatory movement, as the Company claims "of surpassing splendour." The beholder becomes fascinated by the constant succession of beautiful forms, and however young, he may be certain that the variety which the instrument is capable of producing will outlive him. It has been calculated that assuming ten changes per minute, a period of 462,880,899,576 years and 360 days would elapse before the entire variety of changes would be exhausted. That ought to satisfy any moderately-reasonable man. We must add that this instrument is likely to prove of considerable service to manufacturing jewellers and other designers. The Oriental Figure puzzle is a cheap novelty introduced at this time by the Stereoscopic Company, and is very amusing and clever. Grotesque figures can be constructed with great facility if the performer has a little ingenuity. With the enchanted frame, a portrait may be most mysteriously produced on an apparently blank surface. The disappearing pyramids, the black cup, and the mysterious infants, offer easy methods of amusing necromancy. The magic corks surprisingly change from six into ten. The Egyptian Zairgeth delivers oracular replies to any expressed wish. These, with older and well-established favourites, maintain the well-won popularity of the Stereoscopic Company.

#### EUGENE RIMMEL.



As usual, Mr. Rimmel's store is in splendid form. The proprietor makes equal slaves of art and nature, and concentrates at his odoriferous establishment all the perfume which poets hint once burdened the air of Araby the Blest. The elegant perfume fountains of all kinds are very popular at this season of the year. An abundant stock of quaint figures, one of which we illustrate, attracts considerable attention, and these are really well-executed. Most of them conceal little bottles of perfume in their stomachs. Crackers of many varieties are on hand, containing flowers, fans, and other fancy articles. Among these we notice some new

comic conversation crackers which run in pairs, one for question and one for answer. The unexpected juxtapositions involved will render these very popular. As usual, Mr. Rimmel is very tasteful with his Christmas and New Year cards, sachets, and fancy boxes. We must also give one word to his almanac. We have this year for the artistic design, a series of beautiful women, selected from the heroines of Italian poetry, with the intellectual profile of Dante as a frontispiece. The subtle flattery of likening Mary Jane to Petrarch's Laura, will occur to many a lovesick swain, and will surely prove irresistible.

#### McMASTER, HODGSON, AND CO.

AMONG the many departments of business included in the establishment of this eminent Dublin firm, perfumery is one which they have cultivated with characteristic energy and commensurate success. We gladly take this opportunity of introducing to the trade Messrs. McMaster's excellent box of 1s. perfumes. The box is circular, and contains a dozen bottles, which so arranged, give a very pleasing effect, and make the whole an attractive object for the counter. Besides, they are large bottles, and the contents are of excellent quality. Each one is fitted with one of the patent sprinklers. We may call this box of 1s. perfumes the *piece de resistance* of Messrs. McMaster's perfumery stock; but we should not do them justice if we omitted to mention their higher class of scents. Their "Kanangan," the "Wild flowers of Talluhogue," and others with national or other titles, deserve great popularity for their richness, apart from patriotic sentiments. We may also mention with approval the 1s. pomades turned out by this firm.

#### OTHER PERFUMERY HOUSES.

THE majority of the perfumery manufacturers of London, and elsewhere, are continually preparing novelties for stock without special regard to the Christmas season. A very splendid assortment of fancy boxes, easelks, imitation portmanteaus and hampers, containing soaps and scents, is to be met with at Messrs. Low, Son, and Haydon's, in the Strand. Mr. Whitby, of Worship-street, keeps up with excellent effect his varied and useful stock, and the Crown Perfumery Company has entered into the competition with full grown strength. The gentlemen who are working this last-named enterprise have command of a good reservoir of taste and skill, not to mention other essentials. Among seasonable novelties we must not omit to mention the excellent glycerine preparations of Sargs, of Vienna, sold in this country by Messrs. Schmedes & Co., of Castle-street, Falcon-square.

#### BONBONS, ETC.

WE pass from perfumery to a very important class of Christmas goods. For these bonbons, cosaques, and crackers, we look to Messrs. Thomas Smith and Co., of the City-road, as the most abundant manufacturers. This firm manufactures all kinds of ornamental confectionery, among which we may especially mention their wedding cake ornaments, which are often very artistic. We should find it impossible in any reasonable space to give an idea of the variety of amusing and beautiful designs in cosaques, etc., which Messrs. Smith have introduced. They have scores we know, hundreds we believe. Those containing costumes yield great amusement, and certain others with imitation flowers are very pretty. This year, some novelties are again introduced. For little ladies and gentlemen, forfeits,

and Under the Mistletoe, have been designed, each offering a laughable game combined with the popular cracker explosion. The Gipsy Queen bonbon, and the Book of Fate cosaques, are oracular amusements for ladies and gentlemen of somewhat riper years. Under the title, Hidden Treasures, we have a very pleasing surprise. Concealed within a beautiful artificial flower, but exposed when the cracker is pulled, is a little box containing jewellery, and a motto. All these are supplied in boxes effectively and appropriately labelled. Messrs. Smith also supply dozens of crackers in beautifully coloured gelatious easelks, oval and diamond-shaped. Their baskets of "kisses," sold at 4s. 6d. per dozen, strike us as very pretty and saleable; but we would recommend any one inclined to go into this class of trade for the season to pay Messrs. Smith a visit, or get their descriptive price-list.

#### CHOCOLATES.

WE arrive next at this favourite luxury, which in its various forms is well worth the attention of the chemist. Again we have to notice the beautiful manner in which Messrs. Cadbury, of Birmingham, adorn their boxes of chocolate creams, and chocolate *dragées*, as they term some new little lozenges. The pictures on these boxes are really artistic works, and both for design and execution, deserve the highest commendation. Some of them, we believe, have been designed by one of the Messrs. Cadbury. For novelties, this firm introduces some easelks of straw-work, containing *crèmes*, or *dragées*, and these are showy and pretty, but we still prefer the boxes with the portraits of Little Jane or Master Tom.

We have also to notice a very tasteful assortment of similar goods from Messrs. Fry and Sons, of Bristol. The chocolate creams sent out by both houses are delicious, bonbons, and cannot be unwholesome. The two houses vie with each other in the attractive style in which they put these up for the counter. We can confidently commend, too, Messrs. Fry's preparation of cocoa with milk, sold in tins, which is a genuine and convenient article.

#### BISEUILS.

THIS luxury is an article too much neglected by chemists and druggists. Perhaps it is not worth while, unless a constant demand can be depended on, to keep them for sale *en vrac*, but we may remind our readers how neatly some of the biscuit manufacturers supply their wares in small tins, elegantly enveloped and labelled. We have samples from Messrs. Peek, Frean, and Co., of London, and from Messrs. Carr and Co., of Carlisle. We notice as a novelty from the former house, the Art Union biscuits, the mystery of whose nomenclature is to us inscrutable. Messrs. Carr, and Co.'s boxes are very effectively got up, and they announce an abundant list of titles.

Messrs. W. and A. Gilbey, wine merchants, have just opened handsome premises at 84, Union-street, Glasgow; indeed, the block of buildings in which they are situated have been declared by architects to be the finest specimens of warehouse architecture in Great Britain. At the present moment numerous *employés* are engaged receiving wines of all varieties for stocking the new depot, and it is expected that it will soon become one of the features of the trade in Glasgow. The firm have also established agencies in Oswald-street, Anderston, Broomielaw, Duke-street, Dumbarton-road, Eglinton-street, Pollockshaws, and Strathbungo.



## FRENCH ELEGANT PHARMACY.

IT has been the fashion of late years to look almost exclusively to the United States for novel samples of "elegant pharmacy." The pharmacists of that country have done much, it is true, in promoting the millennium of medicine, and we have no wish to disparage their labours. But equally we wish that the efforts of our nearer neighbours should not be disregarded, and we shall, therefore, take care, from time to time, to bring under the notice of our readers such specialities of France as may seem worthy of pharmaceutical attention. The builders of the Tower of Babel are unquestionably responsible, to a great extent, for the comparatively slight intercommunication between the *pharmacien*s of France and those of our own land. But this difficulty is continually being worn down, and we observe with pleasure a considerably-increasing tendency to open commercial and scientific relations between the two countries. There is one characteristic of French specialities which is a very important one, and that is, their almost universal reliability. Almost invariably they are what they are claimed to be, and this peculiarity has a special value in England. We proceed to describe a few which may be interesting to our readers.

## THEVENOT'S CAPSULES.

THE capsules of Monsieur Thevenot, of Dijon, will win the favour of every pharmacist who examines them. They are small and beautifully made. The average weight is about eight grains (English weight), of which three grains are capsule, and five grains substance. Monsieur Thevenot was the inventor of the process by which these capsules were obtained many years ago, and he prepares a large variety of medicines in this form. The material of the capsule is in great part gum and sugar, with just sufficient gelatine to provide the requisite rigour. With this composition solution is very promptly effected, and the inventor claims, not without reason, that in the case of oily substances the medicine is somewhat emulsified by the ingredients of the envelope when solution occurs, and that thereby assimilation is facilitated. By his process all kinds of medicines can be capsuled, except those containing water, which, of course, itself dissolves the envelope. We have before us specimens of a large number of oils, fixed and essential, ethers and etherial essences, turpentine, balsams, and tar; and lastly, which is novel, certain powders, such as rhubarb, cubeb, quinine, magnesia, reduced iron, etc. The reader who will refer to Monsieur Thevenot's price-list, published in our last number, will find that no very exorbitant demand is made for these excellent products.

## MENTEL'S GRANULES.

THE difficulty of administering certain powders has called forth the ingenious skill of Monsieur Mentel, of Paris. The granules bearing this gentleman's name are compounded only of the medicament itself and sugar, no mucilage or other excipient being employed. By this process rhubarb, kouso, subnitrate of bismuth, phosphate of lime, quinine, and bromide of potassium, have been granulated, and can be swallowed with the greatest ease and without taste in a spoonful of water or soup.

## CHANTEAUD'S DOSIMETRIC MEDICINES.

M. CHANTEAUD has devoted his attention more particularly to the convenient administration of the powerful alkaloids such as strychnine, etc. The specimen before us is quassine. We have a little tube containing a certain number of minute silvered pilules, each one representing exactly one milligramme of the alkaloid. Our readers will readily judge how easily the medical man can order the administration of strong medicines in this form.

## LIMOUSIN'S SPECIALITIES.

WE have before us some samples of Limousin's *Chloral Perle*, or *dragrées* of chloral hydrate. These are like sugar-plums, and each one contains twenty-five centigrammes, or about four grains of the crystallized chloral. We have also a sample of Limousin's sulpho-vinate of soda, which is recommended by Dr. Rabuteau, of Paris, as a purgative superior in certain respects to the ordinary Epsom salts. It is free from any bitter taste, and is said not to induce subsequent constipation. Limousin's process for preparing this salt will be found detailed in our June number of this year. M. Limousin also manufactures a very perfect little drop glass, which is most perfectly accurate. It consists of a little reservoir, with a minute tube about two inches long, and with a diameter of three millimetres. A drop of distilled water from this tube weighs exactly five centigrammes, and therefore twenty drops weigh exactly one gramme. The following table has been prepared by M. Limousin, to accompany his instrument, and as it gives the relative value of drops, its indication will often be found useful. It shows, at least, how very important it is that strong medicines, when ordered by the drop, should always be measured, the variation in the weight of a drop being so very considerable.

20	drops of distilled water	weigh one gramme.
20	Pearson's solution	"
23	Fowler's solution	"
28	Sulphuric acid	"
38	Laudanum	"
40	Black drop	"
48	Croton oil	"
54	Chloroform	"
56	Eau de Rabel	"
58	Tincture of Nux Vomica	"
58	" Aeonite	"
58	" Arnica	"
58	" Belladonna	"
58	" Colchicum	"
60	' Aleoholate of Aconite	"
60	Bitter drops of Baumé	"
70	Hoffman's Anodyno	"
96	Etherial tinc. of Digitalis	"
98	Sulphuric ether	"

## COOPER'S EFFERVESCENT LOZENGES.

MR. COOPER, of Oxford-street, London, has introduced a veritable novelty, which will, no doubt, be found of considerable service. They are lozenges which effervesce as soon as they are put into the mouth, and therefore they may be described as a kind of solid and sweetened seidlitz powder. Much ingenuity must have been displayed in constructing them so that they should not effervesce before being finished, but certainly they are well made, and keep well. It is often desirable to secure the benefit of a draught of soda water without having to take a quantity of liquid; these lozenges offer the facility. Mr. Cooper also prepares similar lozenges variously medicated.



[The following list has been compiled expressly for the CHEMIST AND DRUGGIST by L. de Fontaineuoreau & Co., Patent Agents, 4, South-st., Finsbury, London; 10, Rue de la Fidélité, Paris; and 33, Rue des Minimes, Brussels.]

Provisional Protection for six months has been granted for the following:—

2988. J. Young, of Kelly, Renfrew, North Britain. Improvements in treating liquors containing ammoniacal compounds in order to obtain products therefrom. Dated 10th October, 1872.

3014. S. H. Johnson, F.C.S., of Stratford, Essex. Improvements in the method of and apparatus for separating the soluble constituents of substances from the insoluble constituents. Dated 12th October, 1872.

3032. J. Hargreaves and T. Robinson, of Widnes, Lancaster. Improvements in treating sulphides, and in obtaining products therefrom. Dated 15th October, 1872.

3052. J. Hargreaves and T. Robinson, of Widnes, Lancaster. Improvements in apparatus employed in the manufacture of sulphates of soda and potassa. Dated 16th October, 1872.

3071. J. Hird and E. Ensor, of Bristol, Gloucester. An improved stopper for closing the mouths of bottles and other vessels for containing liquids. Dated 17th October, 1872.

3101. W. R. Lake, of London. Improved processes and apparatus for manufacturing compounds of pyroxyline or gun cotton. Dated 21st October, 1872.

3103. R. F. Fairlie, of Victoria street, Westminster. Improvements in apparatus for the extraction of nitrate of soda from crude nitrate earth stone, usually called caliche. Dated 21st October, 1872.

3128. D. Jones and W. P. Wyatt, of Clerkenwell. Improvements in portable and other hot air, vapour, shower, and medicated bath apparatus for curative and other purposes. Dated 23rd October, 1872.

3170. J. W. Joyce, of Burford, Salop. Improved apparatus for counteracting sea motion in passenger and other vessels, and thereby preventing sea-sickness. Dated 25th October, 1872.

3173. E. Rowe, of Brentwood, Essex. Improvements in treating earths or materials containing metallic oxides, and in obtaining products therefrom, and in the use of such products. Dated 25th October, 1872.

3190. F. L. T. de Frodeville, of Paris. Improvements in mattresses suitable for use in ships, hospitals, and other places, and which can be employed for saving life at sea. Dated 26th October, 1872.

3202. W. Thompson, of Wandsworth-road, Surrey. Improvements in the manufacture of white lead, and apparatus therefor. Dated 29th October, 1872.

3221. W. Darlow, of North Woolwich-road, Essex. Improvements in portable magneto-apparatus for curative and other purposes, and in the mode of applying the same. Dated 31st October, 1872.

3250. P. Forbes, of Hounds-ditch, London. Improvements in means or apparatus for the preservation of substances for food. Dated 2nd November, 1872.

3261. J. A. Wanklyn, of Harrington-street, Hampstead-road. Improvements in the production of oxygen gas. Dated 2nd November, 1872.

3273. J. B. Spence, of Manchester. Improvements in obtaining anthracene, and in apparatus connected therewith. Dated 4th November, 1872.

3277. R. J. Lee, of Maddox-street, Regent-street. Improvements in inhaling apparatus, applicable also for heating medical baths. Dated 5th November, 1872.

3340. H. Deacon, of Widnes, Lancaster. Improvements in the manufacture of bleaching liquor. Dated 7th November, 1872.

3322. W. Marriott, of Huddersfield, York. Improvements in the manufacture of salts and oxides of lead, and in apparatus therefor. Dated 8th November, 1872.

3323. A. M. Clark, of London. Improvements in the manufacture of stearic acid. Dated 8th November, 1872.

3378. F. N. Target, of Colyton, Devon. Improvements in preserving food, and in the means or apparatus employed therein. Dated 13th November, 1872.

3393. G. Clark, of Craven-buildings, Drury Lane. Improvements in preserving animal and vegetable articles of food, and in vessels, apparatus, and appliances for such preservation. Dated 14th November, 1872.

Letters Patent have been issued for the following:—

1290. H. A. Bonneville, of Paris. A new and improved medical injecting or irrigating apparatus. Dated 30th April, 1872.

1342. R. B. Stephens, of Langrish, Hants. A new or improved milk-condensing apparatus. Dated 3rd May, 1872.

1404. J. Arnold, of West Smithfield. Improvements in enemas or injection apparatus. Dated 5th May, 1872.

1437. J. V. P. Lagrange, of Bonnevoie de Strasbourg, Paris. Improvements in the treatment of saccharine juices and syrups. Dated 11th May, 1872.

1442. W. Gossage, of Wednes, Lancaster. Improvements in the manufacture of certain alkaline carbonates, for the purpose of obtaining carbonic acid gas therefrom. Dated 11th May, 1872.

1456. W. Clark, of London. An improved method of extracting anthracene contained in coal-tar and the pitch occurring therefrom, without either carbonization or decomposing the pitch. Dated 13th May, 1872.

1540. H. and H. Kenyon and J. Swindells, of Warrington, Lancaster. Improvements in the manufacture of chlorine and sulphuric acid. Dated 21st May, 1872.

1582. J. Mayer, of Great Portland-street. Improvements in scissors, shears, and forceps. Dated 24th May, 1872.

1665. W. Darlow, of North Woolwich, Essex. Improvements in the construction of portable magnets for curative and other purposes. Dated 1st June, 1872.

1699. J. T. Dunn, of North Brixton, Surrey. Improvements in the manufacture of phosphorus. Dated 4th June, 1872.

2186. J. Thom, of Chorley, Lancaster, and J. Steinhause, of Pentonville. Improvements in treating fatty substances containing colouring matters, and in obtaining useful products therefrom. Dated 22nd July, 1872.

2260. R. Mitburn, of Whitechapel, and H. Jackson, of Leeds, York. Improvements in apparatus for drying or pulverising, or for drying and pulverising sewage deposit, manure, cement, chemicals, grain, malt, and other like matters. Dated 30th July, 1872.

2277. E. P. H. Vaughan, F.C.S., of London. Improvements in the treatment of phosphates of lime. Dated 30th July, 1872.

2341. C. Morfit, of London. Improvements in the manufacture of pure phosphates of lime. Dated 6th August, 1872.

2344. C. Morfit, of London. Improvements in the chemical treatment of mineral and other crude phosphates of lime. Dated 7th August, 1872.

2357. C. Morfit, of London. An artificial substitute for "Redonda" guano, "Alta vela" guano, and other natural phosphates of alumina, to be used in the defecation of sewage, in the manufacture of sugar from cane and beet-root juices, and in the preparation of certain chemical products, such as pure alumina and the alkaline and earthy phosphates and aluminates. Dated 8th August, 1872.

2450. F. Lipscombe, of the Strand. Improvements in the treatment of noxious vapours, and in apparatus or appliances in connection therewith. Dated 16th August, 1872.

2496. M. H. Syng, of Pall Mall. Improvements in deodorizing apparatus. Dated 22nd August, 1872.

2611. F. Trotman, of Regent's-park, and G. B. Price, of Coleshill-street, Birmingham. Improvements in the closing and opening of necked vessels or bottles. Dated 3rd September, 1872.

2683. M. H. Syng, of Pall-Mall. Improvements in deodorizing apparatus. Dated 10th September, 1872.

2865. R. Veitch, of Milton-street. The cure of corns by friction in the form of a powder. Dated 28th September, 1872.

Specifications published during the month:—

Postage 1d. each extra.

1872.

715. J. Garneri. Production and decomposition of anhydrous chlorides. 2s. 8d.

720. F. Trotman, W. Turner, and W. H. Ryves. Closing and opening bottles. 2s. 8d.

805. J. H. Lock. Bed-tables for invalids, &c. 8d.

809. J. L. Pulvermacher. Electro-conducting and electro-generating apparatus. 4d.

835. N. Prada. Preserving animal substances. 4d.

837. R. Monteith. Preserving animal and vegetable substances. 8d.

849. H. Y. D. Scott. Treating sewage water. 6d.

858. J. Young. Manufacture of carbonates. 4d.

880. H. Hollefreund. Treating potatoes, maize, &c., to obtain saccharine and other products. 1s.

844. J. D. H. T. Decamps. Apparatus for raising and supporting invalids, &c. 1s.

888. W. Darlow. Portable magnets. 4d.

916. G. All x and another. Apparatus for closing the necks of bottles, &c. 1s. 8d.

926. A. C. Henderson. Distilling and filtering fecal matters, &c. 10d.

927. J. S. Joseph. Preparing and treating oxides of iron. 4d.

938. A. Munro. Extracting oils from bituminous substances, &c. 4d.

943. A. Beveridge. Preparing and refining animal fats. 10d.

944. D. Campbell. Treating sewage, &c. 4d.

958. C. D. Abel. Preparing acid phosphate of lime. 4d.

975. F. Prudencio and another. Stopping bottles. 6d.

983. J. F. M. Rigod. Carburetted air. 6d.

989. J. C. Sellars. Obtaining hydrocarbon liquids, gas, &c. 4d.

1006. J. Ormerod and another. Red colouring matter. 4d.

1051. J. H. Johnson. Treating animal and vegetable substances. 6d.

1091. F. Lamy. Producing colours from naphthylamine, &c. 4d.

**ACTION AGAINST A CHEMIST FOR THE MAINTENANCE OF HIS WIFE.**—At the Thorne County Court, on the 5th inst., an action was brought by William Clough, of South Bramall, against John Thomas Miller, chemist, Sheffield, to recover £37 10s., for maintenance and lodging of the defendant's wife. The defendant's wife had been living apart from her husband for twenty years, and during the whole of that time he had allowed her a separate maintenance. Defendant was not a party to his wife being a lodger with plaintiff. It was argued that no wife had any right to pledge her husband's credit without his consent, and defendant had paid the sum agreed upon per week up to the time of the entry of the summons. His Honour gave a verdict for the plaintiff.

**THE Rose Glycerine Jelly**, introduced by Messrs. Low, Son, and Haydon, is of elegant appearance and tint, and is very agreeably perfumed.



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Subscribers are requested to observe that, for the future, the receipt of THE CHEMIST AND DRUGGIST in a *Green Wrapper* indicates that with that number the term of subscription has expired, and that no further numbers will be sent until the same has been renewed. We issue the notice very respectfully, not that we distrust our Subscribers, but simply because we find it impossible to keep an immense subscription list like that we now have, extending to almost every town in the world, in order without an exact system like this.

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CALCUTTA.....	Bathgate and Co.
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MELBOURNE.....	Felton, Grimwade, and Co.
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"WITH regard to the Silicated Carbon Filters, I have made many experiments upon them, and have been astonished at the energy and rapidity of their action. I passed through a small Filter of this make some of the worst description of water supplied by the London Water Companies, and found it, after filtration, to have become as pure as the very best London water. My experiments show that the Filter exercises a decomposing action—a chemical action—on the Organic Impurities in Drinking Water. I have no doubt that Water, which is dangerous from the Organic Matter contained in it, becomes safe on passing through the Silicated Carbon Filter. A point of some importance, shown by my experiments, is that a Second Filtration still further improves the quality of Drinking Water. After being in use for a considerable period, Filters lose their power and require renovation. I have found that the passage of a little Hot Water through the Silicated Carbon Filter, and afterwards blowing a little air through it, restores its power."

J. ALFRED WANKLYN, M.R.C.S., London,  
Formerly Professor of Chemistry in the London Institution;  
Joint Author of a Book on Water Analysis, and of the  
Ammonia Process.

## WARREN'S "SWEET" ESSENCE OF RENNET.

From "THE LANCET," May 13th, 1871.

"This preparation differs from the ordinary liquid and so-called essences in its freedom from acid and salt, which after a time affect injuriously the coagulating power of the rennet. Tested with milk, we found it to answer admirably."

From "THE MEDICAL PRESS AND CIRCULAR," July 12th, 1871.

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## ACADEMICAL INFLUENCE.

IT is important to scrutinize very narrowly the emendations which the Board of Examiners in conjunction with the Pharmaceutical Council have just made in reference to the regulations for the various examinations. As far as we can gather any definite ideas at all on the subject, we are forced to the conclusion that the Council is now acting in such a manner as, if persisted in, will lead sooner or later to an open revolt against their authority on the part of chemists and druggists outside their circle. We have watched with some anxiety of late, the growth of ultra-academical views; we have heard from one speaker after another, the most extravagant exaltation of a certain academical training; the most narrow and prejudiced abuse of everything non-academical. Men are carelessly branded as criminal for no other reason than that their ways are not as the ways of Bloomsbury-square; and students whose hard patient toil in face of very untoward circumstances, has resulted at last in a victory over their studies, certified by the examiners themselves, have been sneered at, and held up to ridicule and ignominy, because they did not draw near to the gates of pharmacy by the royal road. These sort of students deserved a reception far different to that. Not a patronizing oration, but honest respect was due to their manly efforts. And yet, amid all the diversity of opinion among the greater or lesser pharmaceutical lights on the education question, there has been no single protest against the ungenerous aspersions which have emanated from the Academy, but rather a gradual convergence to similar views.

The great mistake made at Bloomsbury-square is the cultivation of the idea that there is nothing noble, nothing worth living for, outside the Academy. Studious men are very apt to fall into an error of this kind. Locked up in their own pursuits, they are never interested, only annoyed,

by the great rumbling tumbling world outside. Men with bigger minds can keep scholarship in its proper place, and by their aid the grass is kept from growing in Cheapside, while at the same time the classics are not mouldy. Once the scholars had it all their own way, and they produced—the Dark Ages.

No doubt academic influence has affected the Pharmaceutical Council, the evidence being the set determination which is now made to increase the stringency of the examinations, and we notice with regret that only three votes were recorded against the new policy. Messrs. Frazer, Hampson, and Owen, were the gentlemen who tried to stem the tide of academic influence, and it was stated that Mr. Mackay would have voted in the minority also, if he had been present. Mr. Brown, of Manchester, was also absent. The sixteen who voted for the new regulations are to be credited with good intentions, their object being, as usual, "to raise the professional status of the trade." Doubtless; but it seems to us that they are trying to accomplish that design by teaching the trade to walk on stilts.

It is almost impossible to define an examination so exactly, or to conduct one with such marvellous skill, that the definition and the examination shall precisely coincide. All we can expect is, a rough approximation to the principles laid down. The examiners must always have considerable discretionary power as to the necessary degree of tension in holding the reins. Therefore, we are justified in assuming that the publication of these new regulations, in which, truly, there is no very vast increase of requirements, may be taken as a declaration on the part of the examiners, that after October, 1874, a higher standard is to be set up. A few of the Council tried to make it appear that the alteration would be but very slight, almost immaterial; and the editor of the *Pharmaceutical Journal* writes, semi-officially, that he sees very little to alarm his young friends. Our readers will have the scheme before them, and they can judge for themselves. But this much is evident; the announcement of the change is an indication that things are not to remain as they are, and we do not gather from the tone of the discussion that a lower standard is to be fixed. The *ergo* is very obvious. Slight adaptations might have been made without all this parade; evidently then, a higher standard is resolved upon.

Of course, it remains to consider whether a higher standard is or is not a requisite reform. We speak from certain knowledge when we express our hearty agreement with Mr. Frazer on this point. The Pharmaceutical Council is dealing a severe blow to the trade. Already the supply of apprentices and assistants is becoming appreciably scantier; the business does not offer sufficient attractions to over-balance the long and expensive course of labour and study which is demanded to fit the aspirant for it; and a dead-lock may be the consequence. If legitimate pharmacists are crippled, this, as Mr. Baynes showed, is playing straight into the hands of grocers and hucksters; for notwithstanding Mr. Savage's extraordinary idea, we are quite confident that a stiffer examination will not have the effect of tempting the *jeunesse dorée* of Great Britain into our ranks. Besides, why not look at facts as they exist? Here are nine-tenths of the chemists and druggists of Great Britain, to whom the science already included in the prescribed course of study is utterly distasteful, and scarcely of any *palpable* substantial service. It may be said that such men ought not to enter the ranks of pharmacy; but on the other hand, it is to be remembered that men imbued with the academical spirit so zealously cultivated, do not happen to be just the right sort of people to replace those to whom we have alluded. Is this, then, the time to increase the scope of

the examinations? It is only begging the question when a West-end pharmacist assures us that the subjects of examination are such as "every charity schoolboy ought to know," or something of that character, but the Pharmaceutical Council should remember that it is legislating for a large and very varied body of men. Individually they (the councillors), are necessarily exceptional men, and consequently it is most illogical to draw conclusions, as several of them are very fond of doing from their own experience. However this action may appear to the "young friends" of the *Pharmaceutical Journal*, we are disposed to think that others will regard this academic influence as a somewhat alarming indication; and it will assuredly not tend to strengthen the sympathy between the great body of British chemists and druggists and the Council. If the threatened attempt to increase the fees should be persisted in, we have little doubt that it will occasion an agitation in the country which will not be likely to result favourably for the Pharmaceutical Society.

Before concluding, we would express our cordial agreement with one section of the new regulations, namely, that which fixes twenty-one as the earliest age for the minor examination. It was undoubtedly desirable that some limit of age should be fixed before a person could be pronounced competent to be a master chemist and druggist, and none could have been selected so suitable as the epoch of legal majority. The other regulation, that candidates must produce a certificate of having been employed three years by a pharmaceutical chemist or chemist and druggist, and in dispensing and compounding prescriptions, seems not a wise addition. As Mr. Hampson remarked, some 99 per cent. are sure to pass through that course, and it is a pity to tie the hands of the examiners for the sake of the hundredth.

This subject requires much more consideration than it has had, and demands, too, that it should be looked at by men with catholic minds, untinged with any academical bigotry.

#### A BUSINESS MARSEILLAISE.

THRICE is he armed who hath his quarrel just, Shakespeare has written; and to such a one the smell of the battle afar off or near at hand should be both refreshing and encouraging. Next session there is to be a contest in Parliament between the trading classes of this country on one side, and the Civil Service on the other. If each class were in its proper position the struggle ought to be soon over, and the grievance which so sorely and so righteously chafes the former body ought to be promptly removed. But there is no prospect of such an easy victory. The *casus belli* is too substantial to expect that the enemy will very readily surrender. Let us endeavour to realize our weakness, and thereby we shall be better able to estimate our strength.

As to the justice of our cause, we have finished our arguments on that point. But let us recapitulate the facts of the situation. The trading classes of this country form the mass of the taxpayers. Out of their taxes a body of men is supported, which is known as the Civil Service. Easy and honourable situations have been provided for these civil servants, and salaries higher than the market value have been paid to them. To economise in their purchases, to buy at wholesale prices, and to divide the profit among themselves, to co-operate in short, was perfectly legitimate conduct on their part, so long as the work for which they were paid was fully performed. But they have gone far beyond this. Two societies have been established, which

supply goods to some 3,000 or 4,000 of their own body, and to some 50,000 families besides! Certain of the civil servants derive handsome extra salaries from these undertakings, and coolly retain their original situations also. That is not fair and honourable competition; it is mean and impudent over-reaching. Verily the tradesmen have a grievance.

The British trader is patient and long-suffering. He will submit to a certain amount of wrong and injustice rather than injure himself more by trying to get it righted. But he will be no mean foe when he is thoroughly roused. The civil servants and their patrons, the landlords, the professional classes, the country parsons and squires, and the heroes who do battle with pigeons and partridges, have favoured him with a supercilious sneer, and, in effect, have challenged his right of existence. They have shown unbounded respect to the class which, for a fancy, would tear up the park railings, and unless plentifully coaxed and caressed, would probably still further discommode West-End existence. But the tradesmen have never manifested any desire to burn down Somerset House, or to throw stones at the Downing-street windows. They have always supported the law, and they always intend to support it. But they have resolved at last to have some of the benefit of it for themselves, and be the battle short or long, and to which ever side the victory may ultimately fall, they intend now to fight in every legal and available manner for their existence and their independence.

The meeting held on the 4th inst., at Willis's Rooms, by invitation of the National Chamber of Trade, was a splendid proof that the trading ranks are united and determined. Representative men of all businesses were present, and unanimity and enthusiasm prevailed. The chairman was the representative in Parliament of the largest constituency in the Empire, and for that reason, and for his own personal abilities and character, he can always command respect and attention in the House of Commons. There is already a little nucleus of independent members willing to support him, and it will certainly not be long before the Government must once more answer the question which Sir Thomas Chambers will put to them. It is proverbially unsafe to trust princes, prime ministers, and chancellors of the exchequer; but we are not by any means sure that his appeal, based as it is on justice and reason, will be indifferently received by Mr. Lowe. All we want at first is a searching inquiry into the whole business of the Civil Service. If that inquiry should show that the *employés* are over-worked and underpaid, let that state of things be remedied. If, on the contrary, laxity and irregularities should be brought to light in high or low positions, who will be the champion to advocate their maintenance?

This is the hopeful side of the question; but let us remember that we are only just buckling on our armour now. As yet vast work remains to be done before the tradesmen of the whole country are thoroughly in unison. The Civil Service has great influence in Parliament and with the press; and following the example of the unjust steward, it has made very thick friends with the mammon of unrighteousness. There is a vast weight of inertia in the House of Commons, which always requires long and strong efforts before it can be stirred; and there is a body compact and influential, determined to carry on this system of trading. The Civil Service has on its side nearly the whole of the political press of the country, and the tradesmen are not accustomed to act in concert. Is it not evident that the work before us is no light one? But if the middle-classes of England are to be retained, if there is to be a continuance of that solid mass of British strength which

has for centuries kept in their places the aristocracy on the one side and the democracy on the other, then this battle must be fought. The civil servants must learn on what their tenure of office depends, and the Civil Service of this country must be efficiently performed, and be no longer the happy hunting-grounds of kid-gloved dilletanti. Victory is certain if united efforts can only be assured. The National Chamber of Trade is working well in the cause. It is organizing the ranks and procuring influential aid. But the one great legal power which tradesmen have at their service is this: at every election now to come, to declare a determination to vote only for such a candidate as will guarantee to support an inquiry into the Civil Service. For once let sentimental questions be set aside, and let this point be firmly insisted on wherever a representative has to be chosen, and the trading classes will soon make their power known and felt.



HORACE.\*

M. R. CONINGTON, Theodore Martin, and many others, have translated Horace; brilliant specimens of the translation of separate odes and passages are not unknown in the annals of scholarship; and we give greeting, not the severe criticism deprecated, to the present rendering into English of the verse of Epistles and Art of Poetry of Horace. The introduction states:—

“ Writing, as I do, neither for bread nor for fame, but for recreation and relaxation from the labours and auxiliaries of an arduous profession, I have no object in publishing my translations, except in the diffident hope that haply a few readers, who may honour me with perusing them, may experience some degree of that pleasure which I myself have derived from writing them; and also, that they may perhaps aid the student of Horace in the original in deciphering some of the difficulties of a rather difficult author.”

Dr. Wood has accomplished exactly what might have been expected. He has contributed a conscientious, somewhat poetical, explanation of Horatian verse, and the book is creditable to his diligence, and infinitely more to his determination to renew, or rather to keep alive the memories of classic study in the midst of professional engagement.

Here is a specimen; four English lines, with elisions, convey two immortal Latin verses:

“ Ira furor brevis est; animum rege, qui nisi paret Imperat; hunc frenis, hunc tu coupcse catena.”

“ But angor is short madness. Rule thy mind; If it obey not, 'twill eommand, thou'l find; With bit and bridle eurb it, with a chain Its wild and wayward curvettings restrain.”

Next follows probably the most familiar of stock quotations; of the three lines given, the two last are household words:

“ Qui recte vivendi prorogat horam  
Rusticus expectat dum defluat amnis; at illo  
Labitur et labetur in omne volubilis avum.”

Translated thus:

“ He who puts off the time for living well  
Is like the country clown of whom thou tell,  
That on the river's bank he patient sato,  
Until its stream should past have flow'd, to wait;  
But on it glides, and never shall have gone,  
While the long ages of old time roll on.”

“ Never shall have gone” is not a phrase that would be accepted in our Preliminary Examination; and in passages of such extreme notoriety we naturally expect unusual care in a now interpreter. The opening of the translation is as follows:

\* The Epistles and Art of Poetry of Horace, Translated into English metre by Andrew Wood, M.D., F.R.S.E. Edinburgh, William P. Nimmo. 1872.

## BOOK I. EPISTLE I.

To MÆCENAS.

Mæcenas! who inspiredst my earliest lay,  
Whol' be my theme even to my latest day.  
In my old school again why shut up me  
Though tried enough, and with the rod set free?  
For I'm no longer young, nor now my mind  
As active as it was of yore I find.

Does this correctly represent the meaning of the original?  
The passage in Doering is—

## EPISTOLA I.

AD MÆCENATEM.

Prima dicte mihi, summa dicende Camæna  
Spectatum satis, et donatum jam rude, quæris,  
Mæcenas, iterum antiquo me includere ludo?  
Non eadem est itas, non mens.

Thackery conveys the same idea in a sketch of Colonel Newcome when the fine old gentleman attempts to sing a song and fails. Horace is crowded with difficulties, and the epistles are the toughest portion of his productions.

It is beyond measure hard to catch the grace and sparkle of his writings, and transmute them into another language. It is, therefore, no wonder that Dr. Wood should not always be successful, and he must pardon us when we say that the fault of his rendering is its diffusive style. Great mechanical labour, as well as poetical ability, is needed when a scholar aims at condensation.

## THE VEGETABLE WORLD.\*

THIS work is remarkable for the excellent manner in which many of its very numerous illustrations have been executed, especially those in which trees and foliage have been represented. But this is not by any means its only merit. The author who has adapted M. Louis Figuier's work, but whose name does not appear on the title-page, has accomplished his labour with conscientious skill. Without any affectation of "combining instruction with amusement," he has produced one of the most interesting books on botany which we have in our library. The illustrations are most profuse, and, as we have intimated, are something better than the mere "diagrams" which often give students such a grim notion of "the vegetable world." The first part is on the Organography and Physiology of Plants, and we cannot but admire the way in which the author has introduced fragments from travellers' descriptions, as, for example, on page 130, where, in describing "The Flower," he works in Sir Robert Schomburgk's narration of his discovery of the Victoria Regia. These frequent references to partially extraneous subjects are really very ingenious, for they serve to link facts connected with the science of botany in the mind, on the principle so continually enforced by Professor Stokes. This work may certainly take a high position for the clear and clever style in which it conveys an idea of structural and physiological botany.

In the middle of the book occurs an interesting chapter in which the various systems of classification are given, and sketches of the history, with portraits of many of their authors, are added.

The same interesting style of writing is continued into the part treating of Systematic Botany, in which Dr. Lindley's arrangement has been generally followed. A chapter on the Geographical Distribution of Plants, and a Glossary of Botanical Terms complete this very useful and handsomely executed work.

THE obituary of the month contains the names of the following:—Mr. Bray, of Devonport; Mr. Acton, of Buxton; Mr. Bayley, of Walworth-road, London; Mr. Mucklow, of Birmingham; Mr. Philpott, of Newnham; Mr. Saunders, of Birmingham; Mr. Smith, of Lydney; and that of an interesting but eccentric character, the late Mr. Bohler, of Sheffield.

\* "The Vegetable World;" being a history of plants. Adapted from the work of Louis Figuier. With 473 illustrations. London: Cassell, Petter, and Galpin.

## Literary Notes.

MESSRS. KELLY & Co. have published a second edition of the Chemists' and Druggists' Directory, the pioneer appearing some three years ago. They have evidently revised the work most thoroughly, and they have, too, vastly increased its usefulness by adding Scotland and Wales, and the five chief towns of Ireland, none of which were included in the former volume. Dentists and veterinary surgeons are given, as well as all the subdivisions into which the chemists' trade can be extended.

During the meeting of the British Pharmaceutical Conference at Brighton, Messrs. W. & A. H. Fry, photographers of that town, got nearly a hundred of the members well grouped in front of the Pavilion, and then secured their features. They are not a bad-looking set, and the picture is splendidly taken. The artists publish a key with it, and the list includes nearly all the British pharmacists whose names are familiar.

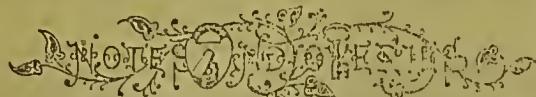
*The Household Guide to Family and Civic Rights, Duties, and Responsibilities.* By W. A. HOLDSWORTH. London: Letts, Son, and Co. (Limited.) This is one of those useful books in which a considerable mass of every-day legal information has been arranged and presented in a clear, business-like manner. The author has given, first, a sort of family law-guide, including the legal relations of husband and wife, parent and child, master and servant, landlord and tenant, and so on. Secondly, we have the more public duties and responsibilities of the citizen defined, comprising definitions of the legal powers and position of overseers, churchwardens, local boards, &c., with several chapters dealing with rates and taxes.

*The New French Tariff.* 1872. London: Letts, Son, and Co. (Limited.) In a neat little book of fifty-six pages Messrs. Letts give us the new treaty of commerce with France, dated November 5th, 1872, for which they charge one shilling. Of course there is nothing here to criticise except the one page in which French moneys, weights, &c., are given. These are very incomplete, not comprising the divisions of a litre, metre, or gramme, only giving their multiples; and, in the case of moneys, *centimes* are denominated cents.

The grocers have this year for the first time a Diary of their own. The "Grocer and Oil Trade Review Diary and Handbook for 1873," (175, Strand,) is a thick substantial-looking book, with information about tea-mixing and other matter of a business character, which will render it very useful to the traders, for whom it is prepared.

Of all the extraordinary results of the investigations into the Chemistry of Food, we have never seen anything more curious than a table which has been compiled by Mr. Charles Ekin, F.C.S., and published by Churchill. The author attempts to give an index, in a picturesque manner, of the relative proportions of nitrogen and carbon in some twenty or thirty different articles of food. This is accomplished by graduated lines of two colours, blue for nitrogen, and red for carbon. A scientific sort of appearance is produced, but we are utterly at a loss to comprehend what purpose this table is likely to serve. The idea of a family studying this map in order to arrange what they will have for dinner is so ludicrous that we should like to linger on it; but seriously, as far as we can understand the idea, this is something like what Mr. Ekin suggests to "heads of establishments, fathers of families, and the clergy." What are Mr. Ekin's views on "cram?" No doubt he is very orthodox. And yet here he calmly proceeds to condense the philosophy of food into a good sized handbill. But the graphic part of his scheme is not good even as "cram." If it is desirable to know that cheese contains 4.5 per cent. of nitrogen, and 37.8 per cent. of carbon, it is surely easier to comprehend the fact from those very simple figures, than by searching it out on a chart, and discovering that it consists of a red line of a certain length, and a blue line much shorter.

THE lease and goodwill of the business of the notorious Mr. Wm. Sumner, chemist, Cheapside, Birmingham, was sold by auction, and realized the sum of £340. The purchaser, is Mr. Merrick of the firm of Merrick and Leonard, who takes the stock and fixtures at a valuation.



STEOMAN'S TEETHING POWDERS.—We considered that Mr. Stedman's letter relative to the composition of his teething powders was of the character of an advertisement, and therefore, with the consent of the writer, we have inserted it in our advertising columns, page 10.

Mr. Buck (Chelmsford).—You will notice that the number of young men who take advantage of our "Corner for Students" is comparatively small, and the pressure on our space is very great. A bi-monthly appearance seems to us most suited to the general demand.

Mr. J. Painter (Malmesbury).—Your contribution is not up to the mark. It has no point.

E.T.C. wants a better process for preparing podophyllio than that given in the Pharmacopœia, which he says only yields  $1\frac{1}{2}$  dram, from  $\frac{1}{4}$  lb. of the root. He also asks some one to tell him what Hungarian liquid is. This correspondent and some few others ask us for all sorts of information in the vaguest possible manner, giving us no clue to aid us in this Hungarian liquid for instance. Is it a drink, or a dye, a perfume, a medicine, or a poison? How can we tell what sort of books to ransack?

Messrs. Kay Brothers (Stockport).—We are convinced of the accuracy of your statement; but at this moment see no reason to reproduce the article referred to.

F. (Ardwick).—You are a victim of editorial tyranny. The alteration of the title of your letter was not, as you sweetly put it, a "typographical error," but was a wilful perversion.

THE EUROPEAN PHARMACOPOEIA.—Dr. Phœbus, of Giessen, has promised to keep us *au courant* with the progress made by the Association for compiling the European pharmacopœia, to which reference has been already made in our pages. The next verbal conference will take place at Vienna, in September, 1873.

R. H. R.—"Mohr and Redwood's Practical Pharmacy" contains the information you require.

Will the gentleman who signs himself *Excelsior*, and who gives neither name nor address, kindly send his real name to the publisher, who will be glad to communicate with him.

Gamma.—To make Tinct. Daturæ Tatulae, in the absence of any official formula, you cannot go very far wrong if you adopt the formula given in the P. B. for Tinct. Stramonii, i.e.,  $2\frac{1}{2}$  oz. of the leaves to the pint of proof spirit.

D.E.F.—You will find the official German form for pepsino wine in our German correspondence of April last.



### CO-OPERATIVE STORES.

#### TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

SIR,—So many hard and bitter things have been said on this subject that it is quite pleasing to find in your issue of last month a communication from Mr. Cole, chemist, of Stoke Newington, dealing with the matter generally in really a common-sense and business-like manner.

With one exception I fully concur with the remarks of your able correspondent; but I must frankly confess that I am astonished that showing, as he does, such a clear appreciation of the laws that should govern all business relations, he should yet err so greatly on the particular point to which I am about to allude. I can only attribute his error to simple ignorance on the matter in question.

The point to which I take exception is conveyed in the following passage in Mr. Cole's letter:—

"I believe we shall find that the only way of striking swiftly, secretly, and surely is for the retailers as a body to cease dealing with any wholesale house which supplies the stores either directly or indirectly; and were this policy carried out in its integrity I have little doubt the desired end would in a great measure be obtained."

Now, I am sure that I shall not be wrong in assuming that the basis of Mr. Cole's recommendation to the trade contained in this extract from his letter, is one of *retaliation* against the manufacturers for their *supposed* unfairness in supplying their goods to the co-operative societies. I pur-

pose, however, to show to Mr. Cole, and I hope, through the medium of your widely-circulated journal, to the trade generally, that no such unfairness really exists, and that therefore the unfairness would be on the part of the trade, if they were to adopt the course of retaliation recommended by him.

I may premise that my experience enables me to speak not only from a retailer's point of view, but from that of a manufacturer, who has had to solve practically the point in question.

I assert then that, as a simple matter of fact, the manufacturers are quite unable to prevent the societies obtaining their goods, and selling them at whatever prices they may think fit. The manufacturers may, it is true, decline to supply the stores *directly*, but they have no control whatever over the numberless indirect sources of supply. The stores can (and do), without the least difficulty, obtain any goods they may require from any one of the numerous wholesale houses either in London or the provinces; or supposing (for the sake of argument only) this source to fail, they can enlist the services of a merchant or commission agent, either of whom, for a trifling percentage, would be only too glad to obtain for them all they may require. I am sure that your correspondent will, on reflection, at once perceive that a manufacturer *cannot*, if he would, control these various sources of supply. It would be utterly impracticable to demand proof from every purchaser that the goods sold to him would not be resold to the stores; indeed, such a demand, if made, *could not* and *would not* be acceded to by the purchaser.

It seems, then, that directly or indirectly, the stores will have on their shelves the goods they require, and this being the case, it is quite immaterial to the retail trade whence they may draw their supplies. But I may add that instances have come under my own observation, in which the manufacturers of certain well-known articles have refused absolutely to supply the stores, because of their "cutting down" the trade prices. With what result? Simply this: that the stores have obtained the articles in question indirectly; and out of mere spite may be, or perhaps only to show their entire independence, have then actually reduced their selling prices still further.

Let me put a case that will strike more home to your correspondent. Doubtless he himself has some specialities: some articles of his own preparation which have acquired a certain amount of reputation. If the stores were determined to sell these articles, and to sell them at their own reduced prices, could he—could anyone—prevent them doing so? Could he demand and obtain proof of the *ultimate* destination of all he might sell? Clearly no. Would it not then be unfair to him if his brethren in the trade were to "cease dealing" in his articles?

These are simple facts, and cannot be gainsaid, although they may be, and indeed are, ignored by some manufacturers whose goods are not sold by the societies, for the sole reason that they have no demand for them; certainly not because they cannot obtain them.

I fear, Sir, I have trespassed too much on your valuable space; but as your journal is one that is professedly devoted to the interests of trade, and as a clear understanding of the point involved is essential to those interests, so far as the manufacturers are concerned, I venture to hope that you will find room for my communication.

I beg to remain, Sir,

Your obedient servant,  
E. M. H.

London, 2nd December, 1872.

### CIVIL SERVICE STORES.

#### TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

SIR,—Allow me to supplement the very sensible letter signed "Fred. Cole" in your last number. He has hit the nail upon the head, and if we can only trust one another and enter into an agreement to buy on no terms *whatever* of those houses that supply drugs, chemicals, patents, oils, etc., to any of the co-operative stores, we shall soon put the brake on and bring about a reaction. So far as the wholesale houses are concerned it would come to this: are you content with one large customer, or will you have 20,000 or 30,000

good average ones. I think if it came to this the wholesale houses would wisely and promptly decide, and these unfair competitors would soon retire into a much smaller compass. But it is not enough that the Civil servants must co-operate (which they have a perfect right to do), but they must make a gigantic wholesale dépôt and shake the confidence and unsettle the foundations of trade all over the country; and after having boasted that a saving of 15 to 20 per cent. is effected by joining their society, they come to the Government, asking for an increase of salary to meet the advanced prices of the necessaries of life. Why, according to their own showing they are not paying so much as they did five years ago, and it will be a crying shame if the salaries of any one of these Civil servants be advanced one penny. Let us bring this co-operative principle to bear upon them, and let the Government know that if these hard-worked gentlemen cannot live upon their recent pay there are thousands who can, and who could do the work and give a couple of hours a day more for the service of the country. Let them resign if they cannot get on, and they will then have ample time to attend to the Civil Service stores in person. Surely we shall hear no more about an advance of salary. It comes badly from a class of men who have done more than any other to damage the interests of the greatest tax-paying body in the community—i.e., the middle-class traders of England. Chemists and druggists, look to your wholesale houses and purge yourselves from all complicity with those who trim between the co-operative and legitimate traders.

Your obedient servant,

Sleaford.

GEO. WESTON.

A house divided against itself cannot stand. We reprint the following letter from the *Daily News* of December 9th:—

“TO THE EDITOR OF THE ‘DAILY NEWS.’

“SIR,—A large proportion, not only of the Civil Service generally, but of the shareholders in the Haymarket and Long-acre Stores, fully endorse much that was said at the recent meeting at Willis’s Rooms. When the idea of introducing the co-operative system after the example of the Rochdale pioneers was first started among the members of the Civil Service, nothing was further from our thoughts than to enter into competition with the retail traders of London, or to attract their customers to our stores. Any such intention, if it ever existed, was kept concealed from those who were invited to subscribe the means for floating the undertaking. The shareholders were told that the sole object of the promoters was to establish a mutual aid and benefit society for Civil servants, in order that their fixed incomes might in some measure be made to meet the increased cost of the necessaries of life. Unfortunately for themselves, Government clerks are not always distrustful, far-sighted men of business. When it was too late they discovered that the articles of association of the Civil Service Co-operative Society were so drawn up as to leave the sole and practically the irresponsible management of the concern in the hands of a certain number of self-constituted directors. No sooner had the idea, started with the funds provided by the Civil Service, taken root, than the directors—who for the most part were heads of departments—were besieged by applications from their rich and fashionable friends to be admitted to the privileges of our stores. In a moment of weakness, and without consulting the shareholders, and still less the Civil Service generally, they consented to make a compromise with their first principles. Unfortunately, success attended their error. The door once only ajar was thrown wide open, and the directors, anxious to show each year an increasing business, eagerly welcomed all applicants for tickets, and even facilitated the sale of goods to those who had none.

“The result is what may be seen any day. Government clerks on limited incomes are pushed aside by ladies who arrive in carriages and attended by servants; the directors make large profits, out of which they may not pay more than five per cent. to the shareholders, but out of which they vote themselves enormous *honoraria* which would cause to water the mouths of the directors of the largest and most successful commercial undertakings in the City, whilst the retail traders are indignant, and justly so, at the questionable means by which their customers have been drawn away from their shops. If the aristocracy, or the landed gentry,

or the professional classes believe in co-operation, let them establish their own stores, and fairly and honourably bear the brunt of the odium which their course will excite. It is neither manly nor just to take advantage of our stores, and to leave us exposed to the attacks of a large and powerful class of the community, nor to make us the objects of such a state of feeling as the meeting of Wednesday night betrayed. The directors, in my opinion, are in the first place to blame for what has happened. Their selfish policy of looking only to themselves and to their aristocratic friends will seriously hamper the Government in any efforts it may have in contemplation to improve the condition of the Civil Service; and if they think that their noble customers, in the event of a Parliamentary crusade against the Service, will stand by it, they are more innocent-minded and more easily hoodwinked than I give them credit for. The more probable result is that the “Upper Ten” will make use of our stores as long as it suits their convenience, place the directors on their visiting lists, and leave the Civil Service in the lurch,—I am, Sir, your faithful servant,

“A DISSATISFIED SHAREHOLDER.”

#### CO-OPERATIVE STORES AND CHEMISTS’ ASSISTANTS.

TO THE EDITOR OF THE “CHEMIST AND DRUGGIST.”

SIR,—Allow me as a warning to others, to relate my case which is by no means an isolated one. Some eighteen months ago, I was induced to accept a situation at one of the stores, thinking I should better myself by having shorter hours, etc., but the driving work we had to get through, and the treatment we received from our manager, far outbalanced the advantage of the shorter hours, and after I had been there nine months, my health failing, I was compelled to leave. Afterwards I tried for nearly three months to get a situation, but no chemist would have me because I had been at the stores, till a friend obtained my present one.

I may add that another assistant from the same stores, who left shortly after me, tried in vain to obtain a situation in the pharmaceutical line and has now quitted it; he is at present assistant to an oilman.

Yours, etc.,

G. T.

#### GENUINE CREOSOTE.

TO THE EDITOR OF THE “CHEMIST AND DRUGGIST.”

SIR,—Mr. Enno Sander, of St. Louis, reported to a meeting of the American Pharmaceutical Association that he had tested several specimens of creosote, and had found only one to reply to the glycerine test. This confirms my statement made at the British Pharmaceutical Conference. Since these observations were made, we have examined numerous imported specimens, and have found only one, that produced by Mr. Trommsdorff, to be the genuine creosote of Reichenbach. All the others were phenic acid, or a mixture of that acid in large proportion.

I have no doubt that creosote may be obtained by the distillation of various resins. The interesting remarks on Guaiacol made by Mr. Williams at the Brighton meeting prove at all events, that it may be prepared from gum guaiacum.

T. N. R. MORSON.

#### THE MINOR EXAMINATION.

TO THE EDITOR OF THE “CHEMIST AND DRUGGIST.”

SIR,—Having read and heard a good deal lately about the desirability of aiding young men in the provinces by reducing the examination fees, and providing them with schools, etc., at the “Society’s expense,” I am induced to send you the annexed to show how unnecessary such a “pauperising” course is.

About three years ago I found myself at the age of twenty an assistant in a small country town in the West of England, and seeing that a preliminary examination was necessary before attempting anything more I rubbed up my school knowledge and passed satisfactorily under the supervision of the Local Secretary. I then made myself well acquainted

with the Pharmacopoeia and with a case of *Materia Medica* specimens which I had purchased.

A few months after that I obtained a situation in the suburbs of town, with a small salary, and the privilege of having two mornings a week from 9 a.m. to 1 p.m. for study.

I then chalked out for myself some such course of study as that recommended by Mr. Stoddart in his address to the students at the commencement of this session, and "stuck to it." I also secured one hour's study before the business of the day commenced, by early rising and sometimes a little reading after 10 o'clock, the time we closed business. By following this course of study, and occasionally visiting the Museum at Bloomsbury-square, I felt at the end of ten months (as I thought) capable of leaping the "gate." I attempted it and succeeded; finding my name "starred" as having passed with honours. I had no cramming of any sort, and I did not attend any lectures, but obtained in this way a thorough practical and plain scientific knowledge of my business; and if I do not get into business in a few months, I intend trying my powers to pass the Major.

December 13, 1872.

CHEMICUS.

### WHERE ARE THE NINE?

TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

SIR,—A letter having appeared in the columns of a contemporary in which the *London Mirror* is quoted as having expressed "a highly favourable notice of a pamphlet by Mr. Schmitt on the painless cure of cancer," permit me to state that in our brief critique on Dr. G. von Schmitt's treatise "On the Curability of Cancer," no opinion "highly favourable," or otherwise, was expressed on the abstract question itself, or of any fault in the mode of treatment adopted by the author. In fact, the writer particularly guarded himself against any support leaning towards Dr. Schmitt's views on the subject, by the following words:—"If he can establish the curability of cancer *in practice*, he will prove himself not only worthy to rank amongst the most eminent members of his profession, but amongst the greatest benefactors of mankind."

Since there appears to be some doubt as to the possibility of curing certain forms of cancer, I would strongly urge upon all sufferers from this dreadful malady to trust to their own medical attendant or some member of the profession who has made the disease his peculiar study, or, should poverty stand in the way, to seek relief from the high medical skill at the Cancer Hospital, Brompton, rather than put their faith in any novel mode of treatment, which may or may not prove effectual.

I am, Sir, etc.,

THE EDITOR OF THE "LONDON MIRROR."

November 19th.

### Provincial Reports.

#### GLASGOW.

##### CHEMISTS' AND DRUGGISTS' ASSOCIATION.

THE second general meeting of this Association was held in Anderson's University on November 27th. Mr. Kinnimont was elected chairman.

Several members were elected, after which the chairman introduced Dr. John Clark, Lecturer on Chemistry, Glasgow, who delivered a very instructive and interesting lecture on the "Oxides of Hydrogen."

The lecturer experimentally proved that water is composed of two equivalents of H and one equivalent of O, as its symbol  $H_2O$  denotes. He continued to speak of  $H_2O$  in its several states—as steam, water, and ice—and by freezing water in an iron shell proved that on becoming solid it increases in bulk, as was instanced by the bursting of the shell at the moment of the solidification of the water contained in it.

Several other experiments in connection with hydrogen monoxide were given.

The lecturer then passed on to the second or peroxide of hydrogen ( $H_2O_2$ ), and explained the *modus operandi* followed in its preparation.

It was stated that turpentine which has been exposed to the air for a long time becomes slightly impregnated with  $H_2O_2$ , the presence of which, as was shown by the lecturer, could be easily detected.

The lecture was listened to with marked attention, and at the close a hearty vote of thanks to the lecturer was voted.

#### GLASGOW.

##### Session 1872-73.

At the close of last session a motion was passed instructing the council to take some active steps to raise the prices by retail of many of the drugs and chemicals that had advanced very much in price, and if possible to adopt a complete retail price list, both for dispensing and general drugs. It was thought advisable to consult the trade generally in such a matter, and, if possible, to carry the numerous doctors who keep open shop with the druggists in the movement.

Accordingly, in September last, a trade meeting was held, which was well attended, and a large influential committee appointed to draw up a complete list. The committee set to work at once, and the list, having been completed, and the various districts of the town canvassed by the members, on Friday evening, the 6th inst., the final meeting of the trade was held in Anderson's University, Mr. John Currie, Sanchiehall-street, in the chair, for the purpose of receiving the report of the committee and giving a formal adoption to the list. The attendance was large, several doctors being present. The report showed that 139 chemists and surgeons in the city and neighbourhood had signed the petitions in favour of the list, and with a very few exceptions they were willing to adopt it, these exceptions, it was broadly hinted, being in the habit of keeping adulterated or inferior articles. A small committee was appointed to wait upon these persons to impress upon them the necessity of acting with the majority in this matter, and that the list gave no latitude for supplying inferior goods at lower prices. After some further discussion regarding the discretionary power to be used by the chemists in reducing prices occasionally to poor people, and it being understood that in such cases the letter "E" should be put on the lefthand corner of the prescription, denoting *exceptional*, Mr. J. M. Fairlie brought forward the following motion, viz.:—"That this meeting of the Glasgow drug trade cordially adopts the 'Retail Price List' submitted by the committee, thanks the members for their arduous labours in connection with its compilation and canvassing of the trade, and appoints them a standing committee to meet as occasion requires for the purpose of revising the price of any articles that may fluctuate, and adding to or deleting from the list any articles they may think necessary."

The motion having been seconded by Mr. Jas. MacDonald (Glasgow Apothecaries' Company) and supported by Dr. George Smith, was unanimously agreed to.

A cordial vote of thanks to the chairman brought the proceedings to a close.

The list is sold by the Association at one shilling per copy.

#### HALIFAX.

##### HALIFAX AND DISTRICT CHEMISTS' AND DRUGGISTS' ASSOCIATION.

THE fourth annual gathering of the above Society took place on December 5th, at the Old Cock Hotel. After the inner man had been satisfied the business of the meeting commenced by electing the officers for the ensuing year, viz.:—President, Mr. Jonathan Jessops; Vice-Presidents, Mr. Wm. Stott, Mr. W. C. Hebborn; Executive Committee, Messrs. Wm. Dyer, Jas. Farr, Jonathan Pollard, Benjamin Shaw, Benjamin Wood; Treasurer, Mr. J. B. Brierley; Hon. Secretary, Mr. Robert Brook. The President returned thanks for the honour in placing him at the head of the Association. He asked the members for their support and encouragement during his official term on behalf of the Society, and he would cheerfully do all that lay in his power to carry out its aims and desires. It had always been a source of pleasure and satisfaction to him that he was connected with the Pharmaceutical Society, and he rejoiced in the efforts made by the

Council to elevate the status of the trade to something more approaching a profession, and would be glad to see this Association lending a helping hand towards so desirable an object. He was glad to see a more fraternal spirit existing among the members, and believed that a better feeling still would prevail and take the place of that unnatural rivalry and competition which had been sadly too prevalent amongst our body generally. He hoped to imitate his predecessors, so that his election to the office would prove, as in their case, a credit to the Association and an honour to himself. The annual report was then read by the hon. secretary, which touched upon various trade matters, such as early closing, sale of vermin killers, Food and Drug Adulteration Act, the education controversy, and the injury to trade from the Civil Service stores in London. The following toasts were then proposed and drunk:—The Pharmaceutical Society, responded to by Mr. Dyer; success to the Association, responded to by Mr. Hebden; the Mayor and Corporation, acknowledged by Mr. Councillor Pollard. Votes of thanks to the ex-president, hon. secretary, and president, brought to a close a very interesting and social meeting.

### HULL.

THE CHEMISTS' Association of this town held its annual dinner on December 2, at the Cross Keys Hotel. Mr. Anthony Smith, President of the Association, occupied the chair, and Mr. Earle the vice-chair. The company also included Mr. Atkinson Pickering (ex-president), Mr. C. B. Bell (hon. sec. and treasurer), Mr. Councillor J. L. Seaton, Mr. Councillor Toogood, Mr. Allison, Mr. George Myers, Mr. Niven (Curator of Hull Botanic Gardens), Mr. John Hare Gibson, M.D., Mr. H. J. Amphlett, Mr. Parsons, Mr. Oldham, Mr. Grindell, Mr. J. Pearce, Mr. Bordass (Driffield), Mr. Flowerden (York), Mr. Anderson, &c. An admirable repast was provided by Mrs. Varley, whose arrangements gave unqualified satisfaction. The usual prefatory toasts having been duly honoured,

The PRESIDENT gave the "Healths of the Mayor and Corporation of Hull," coupling with the toast the name of Mr. Councillor Seaton, whom they were glad to meet as one who had been trained to the profession of a chemist and druggist in his early life. He alluded to that gentleman's persistent efforts at obtaining the abolition of the income-tax, and trusted that as Wilberforce toiled all his life for the emancipation of the slaves, so would Mr. Seaton live to see the trading and commercial interests relieved of that iniquitous impost under which they had so long suffered.

Mr. SEATON, in responding, eulogised the manner in which the Mayor and the members of the corporal body discharged their duties. With respect to the income-tax, he trusted he might live to see the day when that abominable and nefarious tax would be abolished. If he had been worthy of any of the flattering remarks made by their President upon the little services he had rendered, he attributed his success in life to the training and education he received in his youth in order to fit him for the profession of a chemist. He reminded them that a man in such a position required not only a certain amount of education and training, but real analytical observation with respect to passing events; and he assured them that if anybody would only take the trouble to analyze the incidence of the income-tax, they would find there did not exist a more nefarious impost than that which he and so many others wished to see abolished. He hoped the prophecy which their worthy President had shadowed forth would be speedily and satisfactorily realized.

Mr. ATKINSON PICKERING next gave, "The town and trade of Hull," in doing which he mentioned the names of several "worthies," who in days long past had helped to build up the prosperity of this great commercial centre. He spoke of the De la Pole family, Andrew Marvell, and Wilberforce, as names of which every inhabitant might well be proud. He hoped the prophecy which their worthy President had shadowed forth would be speedily and satisfactorily realized.

Mr. ALLISON responded to the toast in a humorous "maiden speech." He remembered the time when there was so much competition among the river boats that passengers were frequently conveyed for nothing, and often

they were invited to a substantial meal into the bargain. He related a laughable anecdote of an old woman who kept in huckster's shop, and who, if a customer asked to be served with soap twice in a day, made some characteristic observation on the improvement of trade. He then followed up the remarks which had fallen from Mr. Pickering as to the vast increase in the commercial importance of Hull, and congratulated his fellow-townsmen upon this satisfactory result.

Dr. JOHN HARE GIBSON next proposed "Success to the Hull Chemists' Association," in doing which he observed it was very much like asking to drink to their "noble selves." It was not many years since the chemists and druggists were looked upon as a rope of sand, having no conjoint action or thorough understanding amongst each other. But of late years they had been endeavouring to combine for most excellent objects; first, that those who entered the trade should be better educated; in fact, that there should be a system of education, and he believed the system now laid down by the chemists and druggists of Hull would become more perfect than any line of procedure they had hitherto pursued. He could assure them such a system was most necessary. Then they combined for self-protection in trade, which was an object he also much applauded. He trusted that the Association would prevent the articles they vended from being adulterated, so that when a public analyst was appointed for this town, he would be able to say he had very little to do amongst the chemists and druggists, for they were all honest men.

The PRESIDENT, in responding to the toast, said it afforded him the greatest possible gratification to occupy the position he now filled. No one but more heartily than he did the necessity for their banding themselves in a bond of common union, and in this respect the Hull Chemists' Association had worked wonders during the past five years. They had established a system of education for apprentices such as was not surpassed by any in the kingdom, and he had every reason to believe it was highly appreciated by them. There was not the slightest doubt that the records of the Pharmaceutical Society would show ere long that it had borne fruit, and that they were enabled to send up some medallist or first-class man who would reflect credit upon the town of Hull. They should, however, not study merely the education question, which was primarily important, but study themselves, and cast to the winds that coldness and those petty trade jealousies which had existed so long amongst them. Let them come together as brethren, and show to the world that it was possible for at least one class of tradesmen to foster and encourage a community of interest. Then when some future chronicler took pen in hand to record the social and commercial institutions which sprang into existence during the Victorian era, not the least amongst them would be the Hull Chemists' Association.

Mr. OLDHAM next proposed the "Healths of the Vice-President, Mr. Earle; the Hon. Secretary and Treasurer, Mr. C. B. Bell; and the Committee." He spoke in felicitous terms of the good services rendered by the executive of the Association, and especially alluded to the indefatigable labours of Mr. Bell.

Mr. EARLE briefly responded.

Mr. C. B. BELL, who was cordially received, said he was thankful to be present on this occasion, and to return thanks for the fifth time for the toast which had been so well received. Any trouble he had taken for the society was rendered with the one object alone in view—to promote the welfare of the Association, and to make its influence beneficially felt among the trade generally. He could remember the time when they seldom saw two chemists speaking to each other in the street; but now all this was changed. He trusted that the Association which had marked out such a wise course for the instruction of apprentices and for the protection of trade, would increase in members every year. As the chancellor of their exchequer, he tried to husband their resources as much as possible; and last year, though there was a small deficit, it was made up by the committee without taxing the members.

Mr. G. MYERS acknowledged the toast on behalf of the committee.

Mr. NIVEN next proposed "The Medical Profession," associating with the toast the name of Dr. John Hare Gibson.

Dr. GIBSON said—If there was any set of men who knew what a medical man was, what he ought to be, and what he had to pass through, it was the body of chemists and drug-gists. They knew the constant work he is called upon to do, not only with the head, but also with the corporeal frame. He had had thirty years' experience, and he had found this continual action day by day very exhaustive. He advised chemists to educate themselves, and to advance to such a position that the medical profession might place confidence in them, not only in their ability as pharmacists, but also in their honour as gentlemen. So soon as they did that, the profession would only be too glad to throw all pharmacy into their hands. He would do so to-morrow if he could get a dozen men in Hull to join him; but unless they could get an undertaking from the chemists as a body that they would act honourably, they dared not entrust their prescriptions into their hands. He did not see why this could not be arranged as in France, Germany, Denmark, and other countries, and even in Scotland, and trusted that system might soon be brought into operation in this country.

The PRESIDENT then proposed the "Health of the Lecturers," Messrs. Niven and Parsons, to whom the Association was greatly indebted for the valuable tuition of those who had been placed under their care.

Mr. PARSONS responded to the toast. The latter looked forward to the time when a school would be established in Hull for teaching pharmacy, *materia medica*, and botany in their entirety. He was satisfied that men capable of conducting such a school were to be found; if not, they were told of the staff of professors in London being enlarged, and men being sent down to local centres in the country.

Mr. C. B. BELL then proposed "The Visitors," to which Mr. BORDASS and Mr. FLOWERDEN responded, the latter in turn giving "The Ladies," the toast being acknowledged by Mr. ANDERSON.

Mr. GRINDELL proposed "The Press," with which was coupled the name of Mr. H. J. Amplett, of the *Hull Packet and Times*, who briefly responded.

The "Health of the President" was then given by Dr. J. H. GIBSON, and acknowledged by Mr. ANTHONY SMITH, who subsequently proposed, "The Pharmaceutical Society of England." In doing so he regretted exceedingly the absence of their old and valued friend, Mr. James Baynes, who was a member of the council of that august body, but who, he was sorry to say, had recently been suffering from indisposition. They would all rejoice to know Mr. Baynes was now nearly convalescent, though he had not felt himself well enough to come amongst them on this occasion.

Several other toasts of a complimentary nature were honoured, and the proceedings were enlivened with some excellent songs. The party separated a few minutes before one o'clock, that being the limit of the extension of licence granted by the magistrates for the occasion.

#### NOTTINGHAM.

THE Nottingham and Notts Chemists' Association held a *conversazione* at their rooms in Nottingham on the 27th ult. Among the firms who contributed to the interest of the evening may be named Messrs. Allen and Son and Mr. A. Scott, both of Nottingham, who displayed some beautiful photographs and framed pictures. Messrs. Hearon, Squire, and Co., of London, sent some interesting specimens to illustrate the ethyl and methyl series of anaesthetics. Messrs. Lynch and Co. (London) exhibited a new form of *üncturc-press*, a spring root-cutter, and other novelties. Messrs. Hopkins and Williams sent a number of chemical novelties, and some German pharmaceutical appliances from Messrs. Poths and Haas were also on view. Mr. Atherton exhibited a large and handsome collection of sponges, and Mr. Ransome, of Hitchin, presented a remarkable specimen of scammony root with the juice exuding.

The special business of the evening was the distribution of prizes to the students by the President, Mr. J. H. Atherton, F.C.S.

Previous to the distribution the President congratulated the society on the very pleasant and successful evening they had spent, and hoped that another year they might have a *conversazione* on a larger scale. The present one was purely a family gathering of pharmaceuticalists of the town and

neighbourhood. He thought that, although their family party had been so very successful, in his opinion they missed the presence of their elder brethren, the members of the medical profession. The science of medicine and the practice of pharmacy ought to go hand in hand together. The medical profession, he felt sure, would cordially respond to an invitation to meet their pharmaceutical brethren on such an interesting and social occasion as the present one. Another year he hoped to have a similar gathering, and invite all in pharmacy to be present. Such meetings would be productive of much good, and he (the President) thought, now that pharmacy was assuming its rightful position educationally, they, as the representatives of pharmacy in Nottingham, should endeavour so to elevate themselves as to be worthy of their improved position. The President, after alluding to the services which their lecturer, Dr. Souter, had rendered to the society, called upon that gentleman for a few remarks. Dr. Souter gave a short and interesting address to the students, warmly eulogising their attentive aptitude and perseverance, and afterwards gave a little sketch of some peculiar coincidences between some old and new names in the *Pharmacopoeia*.

The prizes were distributed as follows:—

BOTANY.	INORGANIC CHEMISTRY.
Mr. Bothamley 1st	Mr. F. Lumley
Mr. Isaac Grey 2nd	Mr. Ward

#### PRIZES FROM THE SCIENCE AND ART DEPARTMENT.

Mr. J. Stephenson .....	Queen's prizes.
Mr. William Widdowson .....	
Mr. Reuben Widdowson .....	
Mr. Isaac Grey .....	
Mr. F. Lumley .....	Certificates.
Mr. W. P. Bothamley .....	
Mr. Ward .....	

The President announced that prizes would be given by the council to the most proficient in Dr. Souter's class at the end of the session, and also that Mr. Williams had offered a prize for dispensing, which would be awarded to the candidate who excelled in neatness and correct manipulation.

#### SUNDERLAND.

THE Chemists' Association held its annual dinner on December 4th, at the Palmerston Hotel.

The loyal and patriotic toasts having been proposed, Lieut. Thompson, of the Senham Artillery, replying for the "Army, Navy, and Volunteers,"

The Chairman next proposed the "House of Commons." He said Sunderland ought to be proud of the position it held in that great assembly, for two of its self-made men had seats there. Sunderland was one of the most important towns in England; he could remember when it was a small place with its population of 30,000, while now its population was 100,000, and it had ships on every sea. And Sunderland had two most able representatives, who were second to none in the House of Commons. They had made themselves in the town; had taken a most active part in all that concerned its interests, and he thought they ought to be proud that they were able to raise such men. He had pleasure in coupling with the toast the name of Alderman Candlish.

The toast was drunk with great enthusiasm, and the company sang "For he's a jolly good fellow."

Alderman Candlish, who was received with great applause, said he sincerely wished he was as jolly as the song represented. He was extremely glad to partake of their hospitality. He was exceedingly gratified at the existence of such an organization as this, because he believed it was capable of accomplishing essential good, as it had done in the session of Parliament of 1871. Without the exertions of its members in that year, the law with regard to their interests would have been intolerable; it could not have stood long upon the statute book, whereas the law was framed so as to place every man in the profession in his right position. This happy state of things was in a great measure due to themselves and their fellow professionals throughout the country. He was extremely pleased to meet their deputation

in London, it afforded him pleasure to render them such service as it was in his power. As he had in effect said the Government gave way, and altered the law in accordance with the wishes of the chemists. This he thought was a good illustration to them of what the House was, how it worked, and was worked upon. The House of Commons was exactly what they made it. If they had an unsatisfactory House of Commons, they had themselves to blame, for it was the outcome of the men's will, wishes, feelings, and, should he say, passion in some instances—perhaps he might—of the people of this country. He did not object to the ingredient of passion, for if they had little of the emotional in their elections, and in the House of Commons, they would be stale indeed. The House of Commons was perhaps the hardest worked public assembly in the world. It had a most powerful load of labour; and the hours and hours which it sat, and the hours and hours it worked when it did not sit, through its sub-division into committees, was almost incredible. He thanked them for associating his name with the House of Commons. He was proud to represent so distinguished a constituency, for Sunderland had doubled its population and wealth in the last twenty-eight or thirty years. With the exception of Newcastle, there was no town of its dimensions between Leeds and Edinburgh. He therefore might claim to have a share in the influence which governed this country.

The Chairman then proposed the toast of the evening, "The Sunderland Chemists' Association." In the course of an able speech, he pointed out the utility of the Association, and mentioned the services it had rendered connected with a measure which otherwise would have proved detrimental to the trade. With the toast he coupled the name of Mr. Nicholson, their most assiduous and indefatigable secretary.

Mr. Nicholson, in responding, said the members of the society had only one object in view, and that was to advance the position of the chemists. One of the strongest means of forwarding their interests was by the formation of local societies like this throughout the country. That "Union is strength" was shown last year in the Parliamentary business. The cause of the society was progressing slowly, but surely; and if they looked back for thirty years, they would perceive the marked change which had taken place both in the position and qualifications of pharmacists. He hoped the progress would still continue, and that their Association would continue to flourish.

Several other toasts followed, among them "The Medical Profession," coupled with the names of Drs. Yeld and Abrath, and both gentlemen returned thanks. The former expressed a hope that before many years medical men would entirely give up the habit of dispensing, while the chemists would cease to prescribe.

Dr. Yeld proposed "The President and Officers of the Association."

In responding, the Chairman said he considered it derogatory to the character of the medical profession for them to become as it were traders in drugs.

The entertainment gave great satisfaction.

#### POISONINGS.

We have to relate the suicides of two chemists. An inquest was held at Buxton on the body of John Acton, chemist and druggist. It appeared that the deceased had been suffering from mental depression, but nothing to cause any alarm to his family. He got up as usual on Sunday morning and came downstairs, but when breakfast was ready he did not appear. His wife went in search of him, and found him partly on the bed and partly on the floor of his bedroom quite dead. A bottle of prussic acid was found in the room and an empty tumbler, which had evidently contained the poison. The deceased was 73 years of age, and had been in business 55 years, first at Sheffield, afterwards at Buxton. On Saturday, November 9, Mr. Hannaford, chemist, Irthlingborough, was found in a partially unconscious state, he having taken a quantity of laudanum. The usual treatment was had recourse to, and on Monday morning he had nearly recovered. Having been left alone for a short time, he was found with his throat stabbed in four places, and the bed saturated with blood. No motive is assigned for the rash act.

A very sad case of accidental poisoning by chloral hydrate has occurred at Greenwich. A gentleman named David Gower Silva has been in the habit of procuring sleeping draughts from Mr. E. J. Part, chemist, Church-street, Greenwich. After taking one of these draughts he was found dead in his bed in the morning. At the inquest, Mr. Part stated that two years since the deceased came to him for a sleeping draught, which he prepared of laudanum; he also prepared a second draught, but the deceased complained that they were not strong enough. Witness then prepared a draught of 20 grains of hydrate of chloral, with a compound of cardamoms. He found the deceased suffered from excessive drinking. He had since prepared him many draughts, increasing the strength at deceased's request up to 100 grains of hydrate of chloral. On Friday he prepared a draught containing 80 grains, but next morning deceased came and said it was no good sending him a draught under 100 grains. The draught given on Saturday contained 100 grains. He expressly cautioned deceased as to taking the draughts. The coroner severely lectured Mr. Part on his conduct, and hoped the present inquiry would act as a caution for the future.

An inquest on a case of suspected poisoning by laudanum was held by Dr. Lankester on the body of Hannah Harwood, who was found dead in bed, and a suspicion of murder existed against a man who lived with her, and who cut his throat at the time. No traces of poison were found in the body, but a small bottle labelled "Laudanum, poison," was found in the room. The man confessed that he took it himself, that he went to three shops and got a pennyworth at each, and took it the day he intended to commit suicide. A verdict was recorded that the deceased died from heart disease accelerated by intemperance.

An inquest was held at Manchester on Annie Gurlin, widow, and her daughter, Ada Gurlin, aged about 2½ years. The mother had been in a very melancholy way for some months, fretting about her husband, who died eight months ago. She obtained an ounce of prussic acid from Mr. Bentley, druggist, Shoreditch, on the representation that she wanted it for her husband, who was a photographer. She brought a woman named Mary Walker as witness. The jury severely censured this woman's conduct, and expressed their opinion that proceedings should be taken against her.

A gentleman named Richard Mitchell Sampson, of Devoran, Cornwall, was accidentally poisoned by a curious mistake. He had been in the habit of taking "Friedrichshall water" as a preventive against gout. On the evening of the 13th he purposed taking his usual draught, but being near-sighted he poured from a bottle about half a tumbler of Burnett's disinfectant, which he drank off instantly. His wife soon administered mustard and warm water, and a surgeon was in attendance as quickly as possible, but without avail. The deceased was very highly esteemed. His widow is left with ten children.

A case of accidental poisoning is reported from Ireland. A farmer named Walsh, in the county Kilkenny, who had been sick for some time past, received a quantity of medicine in two bottles, in one of which was corrosive sublimate, intended for external use only. The patient, however, swallowed a dose of it, and died in dreadful agony. The person who supplied the medicine, a Mrs. Doolie, Mullinabat, has been committed for trial.

On the 12th ult. an accident occurred at the London and North-Western Railway Station, Birmingham, by which the daughter of Mr. Frampton, druggist, of Oldbury, received fatal injuries. She was crossing the line of metals at a level crossing, instead of using a bridge provided for passengers, when she was struck by an engine which was proceeding along the permanent way with five carriages. Her thigh was fractured, and she sustained other injuries. She was conveyed to one of the local hospitals, where she shortly afterwards died.

W. H. FUNNELL, chemist, of Brighton, has been committed for trial on the charge of setting fire to his premises, which were recently insured.

## Pharmacy.

AT the evening meeting of the Pharmaceutical Society, held on December 4th, several papers were read. We present a few abstracts:—

## ON CHLOROPHYLL IN EXTRACTS.

(By Mr. J. B. BARNES.)

The author had obtained samples of the extracts of aconite, belladonna, hemlock, henbane, and wild lettuce, and found that they contained varying quantities of chlorophyll. In aconite the percentage varied from  $1\frac{1}{2}$  to 4, in belladonna from 14 to 18, in hemlock from 8 to 16, in henbane from  $1\frac{1}{2}$  to  $18\frac{1}{2}$ , and in wild lettuce from 1 to 13. In order to obtain extracts of more uniform strength, the exclusion of chlorophyll was advocated, and the more general employment of liquid extracts.

## LIQUOR CHLORAL HYDRAT.

Mr. J. G. PLUMER sent a short paper, which suggested, as a convenience for dispensing, the employment of a solution of chloral hydrate of the following strength:—Chloral hydrate, 1 ounce; distilled water, sufficient to make 1 fluid ounce; about 5 fluid drachms are requisite, and a solution is thus obtained, every fluid drachm of which represents of the crystallized chloral.

## ANTIMONIUM SULPHURATUM.

JOHN MOSS, F.C.S.

The British Pharmacopœia describes this powder as of "an orange-red colour;" but the author has invariably found that by following the process which the British Pharmacopœia directs a powder of a reddish-brown, rather than orange-red, colour is produced. The sulphurated antimony of commerce, however, is invariably of the colour as officially described. After describing a very exhaustive series of experiments, the author came to the conclusion, first, that the British Pharmacopœia process does yield a compound precisely similar to the definition there given—"Sulphide of antimony,  $SbS_3$  or  $Sb_2S_3$ , with a small and variable amount of oxide of antimony,  $SbO_3$  or  $Sb_2O_3$ ." Mr. Moss's experiments indicated a percentage of the former of 93 per cent.; secondly, that the orange-red powder of commerce is a mixture of pentasulphide of antimony with sulphur, prepared, most probably, by the well-known process of adding excess of sulphur to the soda solution of black antimony whilst still boiling. This commercial article is not the sulphurated antimony of the British Pharmacopœia, and should not be used in place of it.

Dr. REDWOOD made some comments on this paper, in the course of which he described an experiment with the B. P. process he had himself made. Having made the solution by boiling the antimony with the alkali, he took one portion of it while it was still hot at nearly boiling temperature, strained it, and precipitated it with dilute sulphuric acid, and it came out as dark as the darkest specimen which Mr. Moss had placed before them. He took another portion when the cooling had taken place to a greater extent, and treated it in the same way, and it came out of a much lighter and brighter colour, nearly coinciding with the description in the Pharmacopœia.

Dr. ATTFIELD remarked on the interesting chemical question as to whether there is a pentasulphide of antimony at all. No doubt sulphur and antimony are found in such proportions, but they do not necessarily form a chemical compound. Taking Mr. Moss's experiments, it would be seen on the one hand that bisulphide of carbon, which was an excellent solvent of sulphur, took away two-fifths of the sulphur from the pentasulphide of antimony and left the tersulphide. This seemed to indicate that the article was not a true pentasulphide. On the other hand, the tersulphide remaining contained no moisture, which it should contain to correspond with the substance prepared in the usual manner.

There will be no pharmaceutical meeting until February 5th.

MESSRS. HOPKINS AND WILLIAMS, manufacturing chemists, announce that their wholesale business will in future be transacted at 16, Cross-street, Hatton-garden, instead of at 5, New Cavendish-street, as heretofore.

## Trade Memoranda.

Mr. SCRUTON, of Boston, is succeeded by Mr. FOWLER.

Mr. McNEILL has succeeded to the business of Mr. TAYLOR, of Crewe.

Mr. GIBBS (formerly assistant with Mr. HUNT) has opened a handsome shop in the city of Winchester.

Mr. BURGE, of Exeter, has retired from business, and is succeeded by Mr. THOMPSON, of Montrose, N.B.

The Guardians of the Leeds Union ask for tenders for drugs for six months. Competition closed December 18th.

Mr. WILLIAMSOU, North Marine-road, Scarborough, has retired from the drug business. He is succeeded by Mr. WILKINSON, of Ripon.

The Commissioners of the Dublin Exhibition have awarded a prize medal to Messrs. McMaster, Hodgson, and Co., for their "Sweet Essenee of Rennet."

We are glad to notice that "The Eastern," the new condiment introduced by Messrs. Jones and Palmer, of Putney, is securing a well-deserved popularity. It has a very rich flavour, and its saleable virtues are increased by the peculiarity which it presents of being neither exactly a sauce nor a pickle, but something between the two. As an addition to cold meat, it is both wholesome and agreeable.

Liquidation seems to be fashionable at present. A meeting of creditors has been called by Alfred Hodder, of the Triangle, Clifton; this is the second time of asking. Messrs. Bath, chemist, Devonport, Markham, chemist, Reigate, and Stark, chemist, North Shields, have also distinguished, or shall we say extinguished themselves, in like manner. The time is yet in the future when there will be no *Gazette* to fear, but profits quite surprising, with wages falling every year, and markets always rising.

ENCOUNTER WITH A BURGLAR.—A daring burglary was committed early on the morning of the 4th instant on the premises of Mr. George Wilcox, druggist, Prospect-row, Birmingham. Between 1 and 2 a.m. Mr. Withers was awoken by the flapping of the blind of his bedroom window, which, to his great surprise, stood partly open, although carefully closed on the previous evening when he retired to rest. A glance round the room revealed the additional fact that almost every article of value had been removed, and a clothes-box broken open and ransacked of its contents. Hearing a noise below stairs, Mr. Withers conjectured that the robbers were still on the premises, and, without stopping to calculate the consequences, he at once rushed down to verify his suspicion. In the passage leading to the shop at the bottom of the stairs he came face to face with a man carrying a lighted lantern in one hand and a "jammy" in the other. Mr. Withers attempted to seize him by the collar, when a desperate struggle ensued, in which the burglar made repeated attempts to throw his antagonist. Finding himself over-matched at last, he retreated towards the back door, and after calling out to a companion, who was busy forcing open a desk in the shop, he levelled a pistol at Mr. Withers, and fired. The shot took effect in the ankle, producing a wound sufficiently serious to necessitate the removal of the sufferer to the hospital. In the meantime the two men made their escape, leaving behind them a large quantity of plunder which they had packed up ready for removal, together with a small single-barrelled pistol and several house-breaking implements. Entrance on to the premises had been effected by placing a ladder against the back part of the building and forcing open a window, which gave them access to a room where all the keys of the premises were kept.



REVISED TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the publisher of the CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to "The Publisher of the CHEMIST AND DRUGGIST, Colonial Buildings, Cannon-street, London, E.C." the envelope to be endorsed also with the number. The publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

#### FOR DISPOSAL.

Goulding's Plant Food, in exchange. Wyles, Bourn.

Six 1-lb. Syrup Bottles. J. Holdroyd, Cleckheaton.

New Air Bed, never used, cheap. Wyles, Bourn.

Erichsen's "Surgery," in excellent condition, cost 25s. and will be sold for 9s., carriage free. 70/610.

Sixty 2-oz. Bottles of Citrate Iron and Quinine, good, offers wanted. Sample, two stamps. 34/610.

First 23 vols. "Pharmaceutical Journal," half-ealf, quite new; also, odd numbers. The lot cheap. 35/610.

Supplement to Watts's "Dictionary of Chemistry," new, 21s. 6d. 29/610.

Tooth Key and Swivel Punch, Maw's, new, cost 14s. 6d., offers wanted. Chemist, Haddenham.

Displacement Apparatus with glass tap;  $\frac{1}{2}$  gall. Receiver. Doubleday, Bingham.

Articulated Human Skeleton, cost £5. Price £3 10s. 13/610.

Five Lignum's Lotion 2s. 9d.; wrappers, but not the labels, soiled, 1s. 3d. each. Page D. Woodcock, Norwich.

Capital Beeswax. Offers wanted or exchange. Coles, Bourne-mouth.

Several dozens Pritchard's Teething Powders at 6s. and 4s. dozen; clean, unpacked, free any London house. 43/610.

"Pharmaceutical Journal," 26 vols., £2, at J. Richard's, 30, Lower King-street, Manchester.

Job lot Shop Jars and Bottles, cheap. List 1d. J. Floyd, Bury St. Edmunds.

Six gross empty 4 oz. Eau de Cologne bottles in half dozen boxes. "Alpha," 13, Whitefriargate, Hull.

Capital Printing Press and all Requisites, including lot of Type, 25s. Wyles, Bourn.

Muspratt's "Chemistry," two vols., in good condition, half bound in calf, 42s. J. Bienvenu, Southampton.

Lot of Cupis's, Gostling's, and Pegg's Condition and Cough Balls. Wyles, Bourn.

Offers wanted for about 1 ewt. of Virgin English Honey. Frederick Buckley, Chemist, Knighton.

A Block Tin Worm, by Warner, London, as good as new nearly 1 ewt. in weight, offers wanted. Ward and Co. Chemists, Richmond, Yorks.

Offers wanted for Show Jar (Magnesia) and Stand; 24.2 gal. Stoppered Macerating Bottles, gold labels. H. M. Pugh, Tan y Grisiar, Ffestiniog.

One Halse's Galvanic Machine, complete, mahogany box, 12 cells, cost ten guineas one year ago, carriage free for £5 15s. Glanvill, Hyde-road, Manchester.

A pair of Seales (Maw's, as Fig. 1), in use about three years, stand 16 in. long. Price 25s. "Chemist," 128, High-street, Sittingbourne.

Several Mahogany Flat and Upright Cases, Mahogany Pyramid Stand. Homoeopathic Cases, etc. Cheap. W. Parker, Chemist, Manchester-rd, Bradford, Yorks.

Two Specie Jars, Mahogany Stands, and Iron Brackets; Mahogany Cigar Case, six compartments. Watson, Alresford, Hants.

"Pharmaceutical Journals," vol. 1 and vol. 2, new series, complete, in good condition. Offers wanted. "American," care of Mr. Calvert, Clarendon-street, Wakefield.

Adams' Inhalers—thrice (10s. 6d.) brass, eleven (5s.) tin; also one 6 and two 4 dozen Burrow's Soda-water Racks, all new. Offers wanted. Henderson, Chemist, Keswick.

To Dealers in Paraffin Oil, etc.—100 10-gallon Metallic Iron Bottles, only once used, price 4s. 6d. each, cost 9s. each. Scott, Druggist, Rochdale.

Lindley's "Medical Botany," 7s.; "English Composition," 1s. 4d.; Translation *Pharmacopœia Londinensis*, 2s. 6d. "Chambers," Haddenham, Cambs.

Price 12s., a Primitive Printing Press, bought as complete a few months back of B. Wyles, Bourn, cost 21s., good as new. Henry Neale, Riddings, Alfreton.

Balfour's "Class Book of Botany," in 2 vols., 18s.; Lescher's "Elements of Pharmacy," 4s., in good condition. Address, J. K., 118, New Chester-road, Birkenhead.

A quantity of good Honeycomb Sponge. Sample pound, carriage paid to any address, on receipt of 7s. Bygott, Huddersfield.

A Counter Case, about 8 feet long, as Fig. 96 Maw's List, in good condition. State price, etc., to "Pharmacist," 82, Bridge-street, Worksop.

"Pharmaceutical Journals," 3d each, 2s. 6d. a year, 1846 to 1867; Air Pump Apparatus (Newton's) £6 6s., new, £4 14s. Griffith, Cornhill, Bridgwater.

Mahogany Nest of Drawers (10 small 6 large), Lockers, gold labels, in good condition, 40s. cheap;  $\frac{1}{2}$  gallon Glass Percolator, 3 tubes, wood ring, 10s.; two 3-gallon Show Carboys, 7s. Allkins, Tamworth.

Shilling Boxes Seidlitz Powders; small Glass Cases, 12 by 8 by 12, and other sizes; Phosphorus Paste Pots; 2-oz. Stoppered Bottles, large looking. Orchard, Chemist, Salisbury.

"Pharmaceutical Journals" (monthly) July to November, 1870, all for 1871, January and February, 1872, 10d. each; weekly March 1 to December 1, 1872, 3d. each, postage free. Address, G. Sant, Rose Bank, Leek.

Binocular Microscope, first-class, quite new, with Polarise, and other apparatus, in handsome polished mahogany cabinet. Only £10 10s. Apply B., 151, Hoxton-street, N., London.

"Pharmaceutical Journal," new series, Nos. 20 to 94. Offers wanted, or, in exchange, Collodion, Pumice-stone, or an Electric Bell and Battery. A. Booty, Alfred-street, Oxford.

Attfield's "Chemistry," Lescher's "Elements," five Tooth Instruments, Retort Stand, other books, etc. Send stamp for particulars to J. Jupp, Blindley-heath, East Grinstead.

Farre's Abridgment of Pereira's "Materia Medica," 1864, unsoiled, 10s.; Smith's "Principia Latina," eleventh edition, 1868, new, 2s. J. Beauchamp, care of Mr. Tuck, Tiverton.

For Sale, at half price, an original Pindar's Piping Pill Press (19 holes in plate), also large Iron Pestle and Mortar, cost six guineas and one guinea. J. H. R., care of Letchford and Co., 72 Cornhill, London, E.C.

Two flat Show Cases, length 5 feet 4 inches, breadth 13 $\frac{1}{2}$  inches, height 15 inches each; also, 12 pint Tin Still, complete. Offers wanted. A. Harrington, jun., Needham-market, Suffolk.

Two-gallon Bell Metal Mortar, weight 119 lbs., 9d. per lb.; Six 3-gallon Show Carboys, with Cut Stoppers and small Mahogany Blocks, 6 inches diameter, 30s. F. Blunden, Basingstoke.

The numbers of the "Pharmaceutical Journal," complete, from commencement to the first weekly issue; the first eight vols. half-bound. Apply to C. B., 17, Blakebrooke, Kidderminster, Worcestershire.

Magenta and Violet Dye at 10s. per gall., samples sent; upwards of 3,000 coloured Labels, consisting of 25 different sorts, the lot for 7s. 6d. Address, J. G., 15, Scotland-street, Sheffield.

Cooley's "Cyclopaedia of Practical Receipts," fourth edition, nearly new, 14s.; Mayne's "Medical Vocabulary," 3s.; Druitt's "Surgeon's Vade Mecum," eighth edition, 6s. 6d.; Langston Parker on "Syphilis," 4s. T. Bradley, 33, Bond-street, Brighton.

About three gross Lancashire Vermin Killer, by F. S. Wimble, Maidstone; 3 dozen 3d. sent post free on receipt of Post-office order for 5s. 3d. Also, twelve 1s. 1½d. Clark's Polyathic Syrup, 5s. Edward Corke, Chemist, Ticehurst, Hawkhurst.

For sale, about 56 lbs. good seconds Turkey Opium, price 23s. per lb., surplus stock, makes excellent tincture, is very cheap; also, about 24 ozs. Morphiae Aetas, price 18s. 6d. per oz., bought from the best drug houses. Address, James Watson, Rose Corner, Norwich.

Milton on "Spermatorrhœa," 3s.; Muspratt's "Chemistry," ten parts, 4s.; Ryan's "Formulary," 1s. 6d.; Thompson's "Conspicetus," 1s.; Kenrick's "Latin Grammar," 1s.; "Sallust," 1s.; "Phasis of Matter," 8s. M. J., 12, Tonsley-hill, Wandsworth, S.W.

Medicine Chest, similar to No. 9, Maw's Catalogue, baize lined, 28s.; another, similar to No. 000, 26s.; another, similar to No. 8, 35s., in almost perfect condition; also, four other Chests. Particulars and prices on application to Gay, Chemist, Stroud, Gloucestershire.

Kelly's new "Post-office Directory of Chemists and Druggists," 1872, with over 200 collateral trades, published at 12s. 6d., for 7s. 6d.; also, Arnold's "Latin Prose Composition," tenth edition, and Key, for 2s. 6d.. Hay, 4, Regent's-terrace, Hull.

Cheap Dispensing Bottles, to 4 oz. inclusive, 6s. per gross, 6 and 8 oz. 8s., 12 oz. 10s., 16 oz. 12s., all guaranteed clean and equal to new; Quinine Wine Bottles, 8s. and 10s. per gross. J. Whitehead, 9, Pinder-street, Hulme, Manchester.

7 lbs. Aloes Barb. Opt.; 8 oz. Cantharides; 4 oz. Zinc Sulph.; ½ dozen Gold Plated Respirators; 1 dozen Durant's 1s. Capsules; 2 capped Oil Bottles, 40 oz. Any of the above cheap. "Chemist," 9, Pinder-street, Hulme, Manchester.

Owen's "Compendium;" Receipts and Processes of Pharmacy, Chemistry, Confectionery, Perfumery, Cosmetics, Homœopathy, Essences, Wines, latest Discoveries and Improvements. New Impression. 24 stamps. Invaluable. Owen, Chemist, Stratford.

Reservoir Enema, 12s. 6d.; three Midwifery Forceps, 7s. 6d. each; Vectis, 4s. 6d.; Perforators, 5s.; case Twelve Silver-plated Catheters, 35s.; three Dentist's Pin Nippers, 3s. 6d. each, all new. John Hall, 1, Charles-lane, Sheffield.

Eye Douche with ball and tubing complete, 7s. 6d.; India-rubber Enema and Breast Pump combined, 3s. 6d.; Glass Mortar, 2 lb. 13½ oz., 2s. 6d.; Log Sassenfras, 80 lb. 12s.; Maw's Tin Still complete. 7s. 6d.; two Show Jars, 15s. S. J. Potts, Chemist, Mansfield.

2½ lbs. Acid Citric and bottle, 10s.; 8 doz. 1d. and 5½ doz. 3d. Yeatman's Yeast Powder, 12s. 6d.; 10½ doz. 6d. packets Gillard's Condiment, 4s. doz., carriage free; ½ oz. Ext. Elaterii, 7s.; ten 6d. packets Travis's Colloid, 2s.; a quantity of Tinnivelly Senn, 4d. per lb. Sample for stamp. 33/610.

3 Maw's Nautilus Swimming Belts, cost 40s. 6d., take 30s.; Hot Air Bath, cost 12s., take 6s.; British Pharmacopeia, 1864, 3s.; Parke's "Chemical Catechism," cost 15s., 5s. 6d.; Supplement Pharmacopœias, London, Edinburgh, and Dublin, 3s.; London Dispensatory, 3s. John Lea, Folkestone.

Three dozen 30-oz. W. M. and N. M. Bottles, 4 dozen 16-oz. W. M. and N. M. Bottles, four 4-oz. W. M. do., labels nearly new; ten 1-gallon Stoek Bottles, labels defective. The lot for 25s.; hamper to be paid for, carriage not paid, breakage at buyer's risk. Page D. Woodecock, Norwich.

Cases of Cupping, Sealing, Stopping, and Sealing Instruments; Surgeon's Dressing-case, with seven or eight instruments; Pill Machines; small quantities Hydrg. Sulph, Arsenic Flav., Ferri Iodidi, etc., etc. Various exchanges. Tincture press. Carrington, Chemist, Winton.

Eighteen 2s. 9d. Collis Browne's Chlorodyne, 24s.; one 11s. ditto, 6s.; Twelve 2s. 9d. Cockle's Pills, 18s.—all clean and fresh; one 10-inch Marble Mortar, 5s.; one 12-inch ditto, 7s.; four 2-gallon Stoppered Show Carboys, average weight 6½ lbs., 6s. each; two 1-gallon upright, Cut Stoppers, 4s. each. Hardy, Chemist, Stockton-on-Tees.

Offers wanted for thirty-one vols. of "Pharmaceutical Journal," commencing August, 1841, ending August, 1872, first sixteen vols. bound, rest all complete and in good condition, sold in one lot, and other vols. of "Pharmaceutical Journal" complete, also some odd numbers; one "Elements of Pharmacy," Leeser; one Beasley's "Druggists' Receipt Book," Bowen, Chemist, 6, St. George's-terrace, Kilburn, N.W.

One Nitrous Oxide Gas Apparatus complete, comprising Gasometer to hold 50 gallons, 4 Wash Bottles, Wood Box for Retort, Bunsen's Burner, Cox's Face-piece, all as good as new, to be sold cheap; three Vulcanizers complete, with or without Thermometer; Gas Stove, with piping. 10s.; set of 8 Forceps in morocco pouch, new, and of first-class quality, 25s. Address, J. G., 14, Netherthorpe-street, Sheffield.

3 Cachou Aromatisé, 1 dozen boxes Mather's Teats, 4 Gold-beater's Skin, 2 Gaskin's Perfume Pistol, 2 dozen Pink Court Plaster, 1 box Ink Erasers, 1 dozen Cotton Lint, bottle Spirits Ether Nit., bottle Balsam Copalæ, bottle Acid Nitric; 3 De Jongh's Cod-liver Oil, 3 large Oil Tins, Brass Taps, 2 Treacle Cisterns, Patent Brass Taps, 2 Winehusters Spirits Tar, 1 Propert's Glove Paste, and 1 pair Treacle Scales. W. Cooke, Druggist, Tattenhall, Chester.

Chemists' Second-hand Mahogany Fittings, consisting of 26 feet Retail and Side Counters, with Screen and Folding Doors in Gangway; Painted and Glazed Window Enclosures; Silvered Glass, fitted with three Mahogany Stands; Office, fitted with Desk, Drawers, etc.; 140 Gold Labelled Drawers, with Lockers beneath, and entire Range of Shelving Uprights and Bearers; several Warehouses, fitted with Deal Counters, Shelving, Closets, Drawers, Coppers, Sinks, Lead Cistern, etc.; Gasfittings, Standards and Burners as fitted to shop and warehouses; 8 Show Carboys and Specie Jar; 14 1-gallon upright Store Bottles Labelled; large stock Drugs, Patent Medicines, Latin Labels; several gross Pomade, Winchester, Corby quarts, pints, and half-pint bottles; Mahogany Case Operating Instruments. Stamp for list. L. R., 309, New North-road, Islington.

#### WANTED.

Four six-gallon pear-shaped Carboys. 40/610.

Three stoppered Show Carboys, pear shape, ten or twelve gallon. Hardy, Chemist, Stockton-on-Tees.

Bentley's "Botany," 1st edition. Plates of Medicinal Plants. 70/610.

A few 3-lb. or 4-lb. Ointment Pots, also Extract Pots, in good condition. H. Seymour, Okehampton.

"Cabinet of Materia Medica," in good condition. "Alpha," 13, Whitefriargate, Hull.

Materin Medien Cabinet. Good specimens. State lowest price and maker. Bentley's "Botany." 57/610.

Pharmaceutical Latin Grammar. State price and condition to A. F., 20, Sussex-place, Reading.

An 8, 10, or 12-gallon Show Carboy, for Window. Taylor, Geusing Station-road, St. Leonards-on-Sea.

Two copies each Edin. and Lond. Pharmacopœias (Latin). 1800, or later. J. A. Clarke, Chemist, Glasgow.

Good, perfect, 3-gr. Pill Machine, with or without suitable Mortar to same. Jones, Wilsom-road, Abingdon.

Cooley's "Receipts." State price and condition to Owen, Chemist, Stratford.

Gun Metal Suppository Mould and 60-grain Pessary Mould. Whitfield, Scarbro'.

Good modern work on Mechanical Dentistry. State price. Smith, Chemist, Crediton.

Cooley's "Cyclopaedia of Receipts." Address, T. G., 14, Netherthorpe-street, Sheffield.

"Cabinet of Materia Medica," Attfield's "Chemistry," "Guide to Minor Examination," Barber's "Pocket Pharmacopœia." "Alpha," Haddenham, Cambs.

A weekly Medical Journal in exchange for "Pharmaceutical Journal" and CHEMIST AND DRUGGIST. G. Brown, Sandown, Isle of Wight.

Good Chemical Balance (Oertling's), price, how long in use, glass case; also, Sutton's last edition "Volumetric Analysis." 78/610.

Latest editions of Cooley's "Cyclopaedia;" Piesse and Lubin's "Art of Perfumery," Medieal Hall, Buckley, near Mold.

Cabinet Materia Medica, cheap, good condition; Bentley's "Botany;" Royle's "Materia Medica;" Lindley's "School Botany;" and Barber's "Pocket Pharmacopœia." T. Hambridge, Eynsham, Oxon.

Nest Drawers, Mahogany fronted, good condition, about  $5\frac{1}{2}$  or 6 feet long, depth 2 feet 4 inches—sizes,  $5\frac{1}{2}$  inches square, 6 by  $\frac{3}{4}$  and  $6\frac{1}{4}$  by  $1\frac{1}{4}$ . F. Clifton, Chemist, Derby.

Squire's "Companion," Pereira's "Materia Medica," both latest editions; and 24 5-grain Pill Machine, all in good condition. State prices, etc., to Baron, 297, Attercliffe-common, Sheffield.

Flat plate-glass Counter Cases, Soda-water Stand, a 10-ft. glass Wall-Case, with Mahogany doors, also outside Lamp and Bracket, and Gas Glass Chandelier. Must all be warranted in good order. Also a Tooth-brush Stand. 10/610.



#### BANKRUPT.

HARDING, W., chemist, Sudbury.

#### BANKRUPT DIVIDENDS.

COLLINGE, J., doctor of medicino, Ashton-under-Lyne. 1s., second and final. (23, Delancey-street, Ashton.)

WALL, J. T., chemist, Cheltenham. 1s. 10d., first and final. (Wheeler, Cheltenham.)

#### PARTNERSHIPS DISSOLVED.

BENBOW, G. H., H., and F., wholesale perfumers, Little Britain, so far as regards G. H. Benbow.

BROADBENT, J., and LONO, J., manufacturing chemists, Bradford.

COATES, F. W., and HAYNES, S. L., doctors of medicine, Great Malvern.

CRAIGIE, J., and GRAY, J. H., surgeons, Relgate.

CROMPTON, J. W., and POTTER, E. P., vitriol manufacturers, Little Lever lane.

FARMER, J. W., and EVANS, J. C., plumbago crucible manufacturers, Birmingham.

COLDING, W., and GOLDING, R. L., chemists, Albany-street, Regent's park.

HAWORTH, J., and NUTTALL, J., manufacturing chemists, Oswaldtwistle, Lancashire.

LITTLER, S., and REVAN, J., veterinary surgeons, Liverpool.

NOAD, G. W., and REID, A., surgeons, Wokingham.

SMITH, W. T. J., and MILLAR, J. N., surgeons, Wombwell, Yorks.

STRETTON, W. H., and THOMPSON, T. J., surgeons, Beverley.

TRENFIELD, W., and CURTIS, A. A., chemists, Gloucester.



THE Commission appointed to consider and adjust certain matters in connection with the French Treaty is now sitting in Paris, and until it shall have reported the final ratification is necessarily postponed. We apprehend that the specific imposts on chemicals imported into France as fixed by the new tariff will not be subjected to modification by the Commission referred to. The duties as they now stand compare favourably with those imposed by the Treaty of 1860, and in this respect the chemical trade is especially favoured. The 25 per cent. *ad valorem* duties formerly leviable on chemical productions on their entry into France are now converted into specific duties, and the change is in most instances favourable to producers. Tannic acid furnishes an exception, and is burdened with an impost of 7 fr. per kilo., or about 2s. 6 $\frac{1}{4}$ d. per lb., which is more than equivalent to 50 percent. *ad valorem*. Gallie acid is more favourably treated, the duty being 1 fr. 50 c. per kilo., say 6 $\frac{1}{4}$ d. per lb. On iodine it is 60 fr. per 100 kilos. (say 2 $\frac{3}{4}$ d. per lb.) On—Iodide of potassium, 50 fr. per 100 kilogrammes 2 $\frac{1}{4}$ d. per lb. Bromine 25 fr. " " 1 $\frac{1}{4}$ d. " Benzoic acid 80 fr. " " 3 $\frac{3}{4}$ d. " Citric acid 12 fr. " " 1d. " Boracic acid 6 fr. " " 1d. " Vermillion 12 fr. 50 c. the 10 kilogrammes 5 $\frac{1}{4}$ d. " Sugar of milk 15 fr. the 100 " " 1d. " Aniline and other derivatives of essence of coal, 3 fr. the kilogramme (1s. 1 $\frac{1}{4}$ d. per lb.)

On the sulphates of zinc and copper, and the acetate of the latter metal, 5 per cent. *ad valorem* is leviable, with compensatory duties respectively of 75 c., 2 fr. 25 c., and 3 fr. the 100 kilogrammes. This list includes the articles which are saddled with the higher imposition. Looking on the reverse side, we find the list on which duties are chargeable on importation into the United Kingdom is a small one, and comprises such chemical manufactures as spirit enters largely into, viz., collodion (24s. per gallon), essence of spruce (£10 for every £100 value), ether (25s. per gallon), and chloroform (3s. per lb.). The two latter are allowed to enter France from this country upon payment of a much less duty, about 1s. 1 $\frac{1}{4}$ d. per lb. The duty on alcohol being 10s. 5d. per gallon proof strength, made it necessary to levy equivalent rates on the compounds made up of it. With the exception of the articles mentioned, all chemical fabrications are free to enter this country from France absolutely untrammelled. The fact is eloquent without comment, and exhibits the British manufacturer prepared to compete with Foreign rivals at a positive disadvantage.

ALOES.—Socotrine continues to command high rates, and 50 cases offered on the 5th inst. met a ready sale, fine firm selling at £16 10s. to £17, and good at £15. Cape have brought about previous prices, and Barbadoes have been selling fairly. Last month we had occasion to notice a question that had cropped up as to allowance for loss of aloes by absorption when packed in wood. On a lot of 10 boxes knocked down last month a supertare of 18 lbs. was announced to be allowed, but we have reason to believe that the parcel did not emanate from first hands. At all events at last auction 157 boxes were down for disposal, and when brought forward an inquiry was addressed to the auctioneer as to supertare, and without any explanation the aloes were at once withdrawn. Thus it would appear that importers have not as yet recognised the justice of the claim preferred. That they will eventually do so seems tolerably certain, especially when it is made evident that dealers consistently object to pay for aloes with a good lump of wood thrown in.

BARKS.—Cinchonas have been well offered during the month, Crown especially being in plentiful supply; notwithstanding this the value is well maintained, and Calisaya keeps at a firm figure. Inferior kinds as Pitayo and Columbian are neglected however, and largo parcels have been put forward without provoking competition. On the 5th inst. 115 packages of 247 Crown, and 70 serons of 221 Yellow went off at firm prices. At the same time 60 cases Bark grown in the Government plantation at Darjeeling were offered, and found buyers, bold Quill selling at 1s. 4d.

**CINNAMON.**—The quarterly auctions were held on the 25th ult., when a total of 2,207 bales was brought to the hammer, against 1,732 bales August sale, and 1,965 bales at the corresponding auctions last year. At the commencement a flat tone was apparent, and prices declined 1d. to 2d. per lb., but eventually the demand quickened, and a recovery took place, the better qualities selling with good competition at an advance of 2d. to 3d., and in a few instances 4d. per lb. Of the whole about 2,000 bales were disposed of, 532 of which, being first sort, realised 3s. 7d. to 3s. 10d. per lb.

**CARDAMOMS.**—are selling at a very low figure, and holders have accelerated the downfall in price, by forcing off large parcels. The full supply and low rates have favoured some speculation which may prove remunerative as prices cannot decline much more, and strong holding can hardly fail to bring about some recovery. Of 134 cases offered last week 109 sold, fine pale Malabars fetching 6s. 7d., and good greenish Allepy 4s. 5d.

The demand for **CAMPHOR** has not been very active; the China sold has fetched 75s.; Japan, none offering, and quotation nominal, at 77s. 6d. Cambardines are somewhat stiffer, and 6s. 8d. has been paid for good Russian. Cubes show rather more animation, having latterly been very difficult of sale, as a consequence of small consumption. Of 200 bags, 150 from Singapore sold, fair mixed with grey, 23s. 6d.; 4th to 1st class, sea damaged, 18s. to 21s. 6d.; the rest, good stalky, from Samarang, bought in at 23s. Guinea grains last month were tolerably active, and 195 bags of 219 offered sold at 22s. 6d. to 23s. 6d., and on the 5th, 70 packages were brought forward, but met a less active demand, 18 bags good selling at 25s., and 11 casks fair at 23s. Coeulus Indicus is lower, and some small quantity has been sold at 12s. Nux Vomica more inquired for, and at auctions 665 pockets partly sold at 9s. 6d. to 11s., and subsequently 580 packages of 630 have been placed, fine large beans being quoted up to 15s. per cwt.

**MUSK** has, on the whole, been well inquired for, and the value is well maintained. The extreme prices lately obtained for Vanilla have had the effect of loosening holders' hands, and rates have receded somewhat in consequence. 122 tins were offered on the 5th inst., a good part being mouldy; 39 tins sold, beans  $7\frac{1}{2}$  to 8 inches long, bringing 72s.

**OPIUM.**—82 cases Turkey were chiefly bought in on the 21st ult. at 12s. to 30s. for inferior to fine. At last auction none was offered, and just at present the market is less steady, and a slight fall in value must be recorded. This we are advised is due to a marked falling off in the export demand, foreign buyers not being disposed to deal at the price. From a reliable source we learn that some amount of speculation has been carried on by parties who are not well acquainted with the drug, and possibly these began to give way immediately the market assumed a less firm aspect. Be that as it may, the fact is undeniable that the position is weakened, but we believe only temporarily, for reasons before adduced.

**ESSENTIAL OILS.**—The stock of Otto de Rose is about concentrated in the hands of one party, who is holding very tight. Virgin is not obtainable under 30s. Citronella is easier, and of 108 cases put forward, 55 sold at 1 $\frac{1}{2}$ d. to 2d. In reference to this oil an informant at Galle writes: "There are no buyers at rates asked by natives, and one large producer, who has all along held out for high prices, purposes shipping every ounce he can obtain to the London market on his own account." English Peppermint is plentiful, and offers good inducement to buy. The crop this year of both Peppermint and Lavender has been an exceptionally good one. By an inadvertence Neroli has been lately quoted in our list at 5d. to 6d. per oz., and we are indebted to the courtesy of M. Lautier Fils, of Grasse, who, by drawing attention to the mistake, has ensured its rectification.

**GUMS.**—For Olibanum there is rather more inquiry and for fine qualities higher rates are demanded. Arabics have been rather more freely offered and good sorts are dearer. Assafoetida is rather stiffer, but Dammar and Copal remain difficult of sale. A parcel of very fair quality Myrrh has been brought forward at auction and met a ready sale.

**ROOTS.**—Rhubarb has not gone off so freely and prices are rather easier. Galangal: 147 packages offered, but met no competition and were withdrawn. For Calumba the inquiry has been by no means brisk, and of 181 bales, 20 dull sold at 24s. 6d., the remainder bought in at 30s. Seneka is

higher and now held at 5s. 6d., but Gentian is procurable on easier terms.

**SEEDS.**—Of 192 packages Cumin, 15 serons Mogador sold at 22s. 6d., the remainder bought in, small stalky to fine bold Malta at 18s. to 28s. 6d. Compared with price same time last year the value is much depreciated, being only about  $\frac{1}{3}$  what it then was. Aniseed is neglected, 200 bags Chilian were taken back at 17s. 6d., and 40 bags Spanish at 37s. 6d. Coriander, 22 bags sold at 16s.

**SPICES.**—A large supply of nutmegs, amounting to 77 cases, 184 boxes, was offered on the 4th inst. but went off flatly and only 60 cases were sold at a decline of 1d. per lb., bold 78 to 75 nuts to the lb., selling at 3s. 5d. to 3s. 6d. Mace is likewise weaker. **PEPPER.**—A quiet tone has continued to prevail in the market, prices being again easier both for Singapore and Penang, and only small private sales have been effected. Pimento of 701 bags only 150 bags sold at 2 $\frac{1}{2}$  to 2 $\frac{3}{4}$ , being firmer.

**DRYSALTERIES.**—**COCHINEAL.**: A good demand has prevailed and business of some extent has been effected, resulting in a recovery of the recent decline, Honduras and Teneriffe silver being about 1d. dearer, the latter selling at 2s. 3d. to 2s. 4d. per lb. **Shellac**—There has been an increased demand for all kinds and considerable animation has prevailed to the close, which has led to extensive transactions, and a daily advance in prices. America is abstracting large supplies from the Calcutta market, and from thence it is reported that the quantity afloat on the 1st inst. for the United Kingdom is 1,470 cwt. against 7,600 cwt. in 1871. The advance in prices of Gambier is said to be due to scarcity in Singapore through the "Gambier men," as they are called, finding it more profitable to work in the production of gutta percha than cutting Gambier.

**CHEMICALS.**—For the time of year trade has been unusually active, and from official records we gather that shipments of alkali last month show an increase of 56 per cent. on shipments in the corresponding time last year. In bleaching powder rather more has been done in refined borax, which is now worth 102s. 6d. Cream of tartar quiet, at 107s. 6d. Sulphate of copper in moderate demand, and maintains previous value. The variations in the price of the metal do not exercise much influence on its position. Caustic soda is firm, with a tendency to further advance. Tartaric acid has been selling less freely, but citric keeps up its strong appearance. Iodine easier, and iodide of potassium now obtainable at 26s. Mereurials are firmer, and there is not much quicksilver to be had on the spot, the nominal quotation being £13 5s., and to arrive, £12 15s. Nitrate of soda dearer, and has been the medium of much activity. The Peruvian Government proposes to impose an export duty upon this important product, hence the unsettled state of the market which has lately obtained.

**OILS.**—Olive maintains a firm appearance, and prices at shipping ports continue to advance. **Cocoanut**—The demand runs chiefly on fine Cochin, which continues somewhat scarce, and sells readily at £38 10s. to £38 15s. per ton; medium and common are neglected. Ceylon is plentiful, and fine may be quoted at £35. Some foreseen sales of middling quality have been made at £34 10s. Deliveries from 1st to 30th November, were 1,117 tons. There have been some large operations going on in rape, and the price is enhanced. **Palm**—Hard and low oils are still in demand, but Lagos is neglected, and offers at £39 per ton.

**FISH OILS.**—Crude Sperm is not saleable over £88. The stock of whale and seal continues small. The fisheries this year have not been so successful as last, and it would appear not from scarcity of fish, but in consequence of the closely packed ice, the noise of steaming through which gave the alarm. **EAST INDIA** Fish is quoted at £28.

**PETROLEUM.**—In America a combination of producers has been set on foot with the view of taking care of weak holders, and at the same time fixing a uniform price. It is stated that 10,000,000 dols. has been already raised for carrying out the scheme. On this side the oil maintains a very firm appearance and there is not much offering at 1s. 8d.; indeed, this price has been refused for a large quantity, 1s. 9d. being wanted, and it seems probable that this figure will have to be paid shortly. Illuminating oils have been forced into increased consumption by reason of the scarcity of gas which has lately been troubling the metropolis.

## Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining-lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

## CHEMICALS.

	1872.				1871.			
ACIDS	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Acetic .....	per lb.	0 4 to	0 0	0 4 to	0 0	16 0 to	16 3	
Citric .....	per lb.	4 5	4 6	3 0	2 0	16 9 to	17 0	
Hydrochlor. ....	per cwt	4 0	7 0	4 0	7 0	39 0 ..	0 0	
Nitric .....	per lb.	0 5	0 5	0 5	0 5	26 0 ..	0 0	
Oxalic .....	"	0 11	0 11	0 11	0 0	SULPHUR (see Brimstone)		
Sulphuric .....	"	0 04	0 1	0 04	0 1	1 0 ..	1 2	
Tartaric crystal .....	"	1 7	1 7	1 54	0 6	VERDIGRIS .....	per b.	
powdered .....	"	1 7	1 8	1 54	1 6	3 8 ..	3 4	
ANTIMONY ore .....	per ton	300 0	400 0	240 0	0 0	China .....	3 7 ..	
crude .....	per cwt	40 0	42 0	34 0	30 0	1 2 ..	0 0	
rogulust .....	"	0 0	0 0	0 0	0 0	3 2 ..	3 4	
star .....	"	68 0	70 0	46 0	47 0	3 10 ..	0 0	
ARSENIC, lump .....	"	18 6	0 0	15 6	16 0	29 0 ..	28 0	
powder .....	"	9 0	0 0	6 9	7 3	22 0 ..	28 0	
BRIMSTONE, rough .....	per ton	125 0	147 0	360 0	0 0	210 0 ..	210 0	
roll .....	per cwt	10 0	10 0	10 0	10 6	26 0 ..	29 0	
flour .....	"	12 0	12 6	12 0	13 0	1 11 ..	1 11	
IODINE, dry .....	per oz.	1 7	0 0	2 1	2 3	1 10 ..	1 6 ..	
IVORY BLACK, dry .....	per cwt	8 6	0 0	0 0	0 0	2 1 ..	2 3	
MAGNESIA, calcined .....	per lb.	1 6	0 0	1 1	0 0	9 0 ..	9 3	
MERCURY .....	per bottle	255 0	269 0	210 0	220 0	2 2 ..	2 3	
MINIUM, red .....	per cwt	21 3	21 6	21 0	21 6	1 10 ..	1 10	
orange .....	"	32 6	0 0	31 0	32 0	6 6 ..	6 6	
PRECIPITATE, red .....	per lb.	4 8	0 0	3 4	0 0	1 10 ..	1 0	
white .....	"	4 2	0 0	3 3	0 0	0 4 ..	1 0	
PRUSSIAN BLUE .....	"	0 0	0 0	0 0	0 0	77 6 ..	80 0	
SALTS—						CAMPHOR, China .....	per cwt	
Alum .....	per ton	165 0	180 0	160 0	165 0	75 0 ..	75 0	
powder .....	"	175 0	180 0	165 0	170 0	Japan .....	78 0 ..	
Ammonia:						Refin Eng. per lb.	1 3 ..	
Carbonate .....	per lb.	0 7	0 7	0 7	0 7	0 0 ..	0 0	
Hydrochlorate, crude, white .....	per ton	640 0	0 0	520 0	560 0	1 3 ..	1 3	
British (see Sal Ammoniac)						CANTHARIDES .....	6 0 ..	
Sulphate .....	per ton	400 0	405 0	440 0	460 0	6 0 ..	6 0 ..	
Argol, Cape .....	per cwt	65 0	90 0	55 0	90 0	8 0 ..	8 0 ..	
France .....	"	0 0	0 0	0 0	0 0	CHAMOMILE FLOWERS p. cwt	40 0 ..	
Oporto, red .....	"	24 0	27 0	22 0	24 0	80 0 ..	45 0 ..	
Sicily .....	"	0 0	0 0	0 0	0 0	CASTOREUM .....	per lb.	
Naples, white .....	"	0 0	0 0	0 0	0 0	3 0 ..	3 0 ..	
Florence, white .....	"	0 0	0 0	0 0	0 0	DRAGON'S BLOOD, Ip. p. cwt	110 0 ..	
red .....	"	0 0	0 0	0 0	0 0	210 0 ..	100 0 ..	
Ashes (see Potash and Soda)						210 0 ..	210 0 ..	
Bleaching powd. ....	per cwt.	12 0	0 0	13 6	0 0	FRUITS AND SEEDS (see also Seeds and Spices)		
Borax, crude .....	"	50 0	76 0	47 0	65 0	ANISE, China Star per cwt.	107 6 ..	
(Tincal) .....	"	47 0	65 0	45 0	60 0	115 0 ..	125 0 ..	
British refund. ....	"	102 6	0 0	100 0	0 0	German, &c. ..	20 0 ..	
Calomel .....	per lb.	3 10	0 0	3 2	0 0	38 0 ..	65 0 ..	
Copper:						Beans, Tonquin .....	per lb.	
Sulphato .....	per cwt.	31 6	32 0	28 0	30 0	1 3 ..	1 8	
Copperas, green .....	per ton	60 0	62 6	57 6	60 0	Cardamoms, Malabar		
Corrosive Sublimate .....	per lb.	3 3	0 0	2 7	0 0	good ..		
Cr. Tartar, French, p. cwt.	107 6 ..	0 0	100 0	0 0	inferior ..	4 0 ..		
Venetian grey .....	"	107 6 ..	0 0	100 0	0 0	6 7 ..	7 6 ..	
brown .....	"	97 6 ..	100 0	90 0	95 0	Madras .....	2 0 ..	
Epsom Salts .....	per cwt.	5 9	6 3	0 0	7 0	Ceylon .....	3 6 ..	
Glauber Salts .....	"	7 6 ..	0 0	4 6	6 0	CASSIA Fistula .....	per cwt.	
Lime:						11 0 ..	12 0 ..	
Acetate, white, per cwt.	14 0 ..	22 6	12 6	23 0	Castor Seeds .....	11 0 ..		
Magnesia: Carbonato .....	"	42 6 ..	45 0	42 6 ..	46 0 ..	22 0 ..	12 0 ..	
Potash:					Cocculus Indicus .....	12 0 ..	10 0 ..	
Bichromate .....	per lb.	0 8 1/2 ..	0 0	0 10 ..	13 0 ..	16 0 ..	18 0 ..	
Carbonate:					Colocynth, apple .....	per lb.	0 3 1/2 ..	
Potashes, Canada, 1st sort .....	per cwt.	39 0 ..	0 0	45 0 ..	0 3 ..	0 3 ..	0 6 ..	
Pearlashes, Canada, 1st sort .....	per cwt.	39 0 ..	0 0	45 0 ..	Crotou Seeds .....	per cwt.	65 0 ..	
Chlorate .....	per cwt.	50 0 ..	51 0	50 0 ..	67 0 ..	72 0 ..	77 0 ..	
Prussiate .....	per lb.	1 7 1/2 ..	1 8	1 6 ..	Cubebs .....	20 0 ..	25 0 ..	
red .....	"	1 5 1/2 ..	1 6	1 9 ..	Cumin .....	22 0 ..	28 0 ..	
Tartrate (see Argol and Cream of Tartar)		3 1 ..	0 0	3 0 ..	68 0 ..	12 0 ..	15 6 ..	
Potassium:					Dividivi .....	12 0 ..	15 0 ..	
Chloride .....	per cwt.	9 9 ..	10 0	10 6 ..	Fenugreek .....	12 0 ..	22 0 ..	
Iodide .....	per lb.	26 0 ..	0 0	32 0 ..	Guinea Grains .....	23 0 ..	25 0 ..	
Quinino:					Juniper Berries .....	10 0 ..	10 6 ..	
Sulphate, British, in bottles .....	per oz.	8 0 ..	0 3	7 9 ..	Myrobalans .....	9 0 ..	14 0 ..	
Sulphate, French .....	"	8 0 ..	0 0	7 8 ..	Nux Vomica .....	9 0 ..	15 0 ..	
Sal Acetos .....	per lb.	1 2 ..	0 0	1 4 ..	Tamarinds, East India .....	5 0 ..	20 0 ..	
Sal Ammoniac, Brit. ewt.	48 0 ..	49 0	45 0 ..	3 0 ..	West India, new .....	20 0 ..	31 0 ..	
Saltpetre:					Vanilla, large .....	58 0 ..	72 0 ..	
Bengal, 6 per cent or under .....	per cwt.	29 0 ..	29 6	31 3 ..	inferior ..	26 0 ..	56 0 ..	
Bengal, over 0 per cent, per cwt. ....	"	27 9 ..	28 6	31 3 ..	Wormseed .....	0 0 ..	0 0 ..	
Madras .....	"	0 0 ..	0 0	30 0 ..	per cwt.			
Bomb. & Kurrachcop. ....	"	0 0 ..	0 0	31 0 ..	GINGER, Preserved, in bond (duty 1d. per lb.) per lb.	0 6 1/2 ..	0 6 1/2 ..	
European .....	"	0 0 ..	0 0	31 0 ..	0 9 1/2 ..	0 6 ..	0 10 ..	
British, refined .....	"	33 0 ..	34 6	35 0 ..	HONEY, Chili .....	38 0 ..	46 0 ..	
Soda: Bicarbonate, p. cwt.	18 0 ..	0 0	14 0 ..	35 6 ..	Cuba .....	0 0 ..	0 0 ..	
Carbonate:					Jamaica .....	30 0 ..	45 0 ..	
Soda Ash .....	per deg.	0 3 1/2 ..	0 0	0 2 1/2 ..	ISINGLASS, Brazil .....	2 6 ..	4 6 ..	
Soda Crystals per ton	150 0 ..	152 6	100 0 ..	0 0	Tongue sort .....	3 4 ..	5 2 ..	
Hyposulphite .....	per cwt	15 6 ..	16 0	14 0 ..	East India .....	1 0 ..	4 0 ..	

	1872.				1871.			
Soda:	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Nitroto .....	per cwt.	16 0	to	16 3	16 9 to	17 0		
SUGAR OF LEAD, White, cwt.	44 0 ..	0	0	0	39 0 ..	0 0		
Brown .....	30 0 ..	0	0	0	26 0 ..	0 0		
SULPHUR (see Brimstone)					1 0 ..	1 2 ..		
VERDIGRIS .....	per b.	1 1 1/2 ..	1 2 ..	1 2 ..	1 10 1/2 ..	1 11 1/2 ..		
VERMILION, English .....	per lb.	3 8 ..	3 10 ..	3 2 ..	1 10 ..	1 10 ..		
China .....	3 7 ..	4 0	3 6 ..	3 0	0 4 ..	0 4 ..		
DRUGS:					1 0 ..	1 2 ..		
ALOES, Ileptic .....	per cwt.	100 0 ..	240 0	70 0 ..	220 0			
Socotrine .....	"	180 0 ..	340 0	120 0 ..	280 0			
Cape, good .....	"	30 0 ..	37 0	20 0 ..	36 0			
Inferior .....	"	25 0 ..	29 0	22 0 ..	28 0			
Barbadoes .....	"	70 0 ..	200 0	70 0 ..	210 0			
AMBERORIS, grey .....	oz.	20 0 ..	27 0	26 0 ..	29 0			
BALSAM —								
Canada .....	per lb.	1 9 ..	1 10 ..	1 6 ..	0 0 ..			
Capiivi .....	"	2 1 ..	2 3 ..	1 10 1/2 ..	1 11 1/2 ..			
Peru, crown & grey .....	per lb.	1 2 ..	2 9 ..	1 6 ..	3 2 ..			
Calisaya, flat .....	"	3 4 ..	4 10 ..	3 2 ..	3 4 ..			
quill .....	"	3 3 ..	4 3 ..	3 2 ..	3 4 ..			
Carthagen .....	"	0 10 ..	2 2 ..	0 10 ..	1 8 ..			
Pitayo .....	"	0 8 ..	1 9 ..	0 10 ..	1 6 ..			
Rcd .....	"	1 10 ..	0 0 ..	1 10 ..	6 6 ..			
Bucha Leaves .....	"	0 2 ..	0 6 ..	0 4 ..	1 0 ..			
CAMPHOR, China .....	per cwt.	75 0 ..	0 0 ..	77 6 ..	80 0			
Japan .....	"	78 0 ..	80 0 ..	0 0 ..	0 0 ..			
Refin Eng. per lb.	"	1 3 ..	0 0 ..	1 3 ..	0 0 ..			
CANTHARIDES .....	"	6 0 ..	6 8 ..	8 0 ..	0 0 ..			
CHAMOMILE FLOWERS p. cwt.	40 0 ..	80 0 ..	45 0 ..	70 0 ..				
CASTOREUM .....	per lb.	3 0 ..	30 0 ..	3 0 ..	30 0 ..			
DRAGON'S BLOOD, Ip. p. cwt.	110 0 ..	210 0 ..	100 0 ..	210 0 ..				
FRUITS AND SEEDS (see also Seeds and Spices)								
Anise, China Star per cwt.	107 6 ..	115 0 ..	125 0 ..	127 0 ..				
German, &c. ..	20 0 ..	38 0 ..	65 0 ..	70 0 ..				
Beans, Tonquin .....	per lb.	1 3 ..	1 8 ..	0 9 ..	1 6 ..			
Cardamoms, Malabar								
good .....								
inferior .....	"	4 0 ..	6 7 ..	9 0 ..	9 6 ..			
Madras .....	"	2 6 ..	4 7 ..	7 6 ..	8 6 ..			
Ceylon .....	"	3 6 ..	4 0 ..	3 0 ..	0 0 ..			
CASSIA Fistula .....	per cwt.	11 0 ..	22 0 ..	12 0 ..	30 0 ..			
Castor Seeds .....	"	5 0 ..	10 0 ..	10 0 ..	12 0 ..			
Cocculus Indicus .....	"	12 0 ..	13 0 ..	16 0 ..	18 0 ..			
Colocynth, apple .....	per lb.	0 3 1/2 ..	0 3 ..	0 3 ..	0 6 ..			
Crotou Seeds .....	per cwt.	65 0 ..	67 0 ..	72 0 ..	77 0 ..			
Cubebs .....	"	20 0 ..	25 0 ..	26 0 ..	30 0 ..			
Cumin .....	"	22 0 ..	28 0 ..	68 0 ..	75 0 ..			
Dividivi .....	"	12 0 ..	15 0 ..	12 0 ..	15 6 ..			
Fenugreek .....	"	12 0 ..	22 0 ..	13 0 ..	22 0 ..			
Guinea Grains .....	"	23 0 ..	25 0 ..	42 0 ..	42 0 ..			
Juniper Berries .....	"	10 0 ..	10 6 ..	15 0 ..	18 0 ..			
Myrobalans .....	"	9 0 ..	14 0 ..	12 0 ..	17 6 ..			
Nux Vomica .....	"	9 0 ..	15 0 ..	11 0 ..	13 6 ..			
Tamarinds, East India .....	"	5 0 ..	20 0 ..	2 0 ..	12 0 ..			
West India, new .....	"	20 0 ..	31 0 ..	12 0 ..	30 0 ..			
Vanilla, large .....	per lb.	58 0 ..	72 0 ..	40 0 ..	50 0 ..			
inferior .....	"	26 0 ..	56 0 ..	17 0 ..	37 0 ..			
Wormseed .....	per cwt.	0 0 ..	0 0 ..	0 0 ..	0 0 ..			
GINGER, Preserved, in bond (duty 1d. per lb.) per lb.	0 6 1/2 ..	0 9 1/2 ..	0 6 ..	0 6 ..	0 10 ..			
HONEY, Chili .....	38 0 ..	46 0 ..	50 0 ..	50 0 ..	60 0 ..			
Cuba .....	"	0 0 ..	0 0 ..	35 0 ..	50 0 ..			
Jamaica .....	"	30 0 ..	45 0 ..	50 0 ..	66 0 ..			
ISENGUANIA .....	per lb.	3 4 ..	3 8 ..	5 0 ..	5 2 ..			
ISINGLASS, Brazil .....								

1872.		1871.		1872.		1871.	
Essential Oils, continued:—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Citronelle .....	per oz.	0 1 <sup>3</sup> to	0 2	0 1 <sup>3</sup> to	0 1 <sup>3</sup>	£ 36 10	37 0
fine .....		0 0 ..	0 0	0 0 ..	0 0		
Clove .....	per lb.	4 0 ..	0 0	2 4 ..	0 0		
Juniper .....	"	1 9 ..	2 0	1 3 ..	2 4		
Lavender .....	"	2 0 ..	5 0	3 0 ..	6 0		
Lemon .....	"	10 0 ..	17 0	5 0 ..	9 6		
Lemongrass .....	per oz.	0 4 <sup>1</sup> ..	0 5	0 2 <sup>1</sup> ..	0 2 <sup>1</sup>		
Neroli .....	"	7 0 ..	S 0	7 0 ..	8 0		
Nutmeg .....	"	0 10 ..	0 11	0 4 <sup>1</sup> ..	0 10 <sup>1</sup>		
Orange .....	per lb.	7 0 ..	8 0	5 0 ..	7 0		
Otto of Roses .....	per oz.	15 0 ..	30 0	12 0 ..	21 0		
Patchouli .....	"	4 0 ..	0 0	4 0 ..	0 0		
Peppermint:—							
Americau .....	per lb.	13 6 ..	14 6	13 6 ..	14 6		
English .....	"	26 0 ..	28 0	20 0 ..	23 0		
Rosemary .....	"	1 11 ..	0 0	1 9 ..	2 0		
Sassafras .....	"	8 2 ..	S 8	3 0 ..	3 6		
Spearmint .....	"	4 0 ..	10 0	4 0 ..	16 0		
Thyme .....	"	1 10 ..	1 11	1 10 ..	2 0		
Mace, expressed ..	per oz.	0 1 <sup>1</sup> ..	0 3	0 1 <sup>2</sup> ..	0 3		
OPPIUM, Turkey .....	per lb.	28 0 ..	24 0	17 0 ..	19 0		
inferior .....		12 0 ..	20 0	11 0 ..	10 0		
QUASSIA(bitterwood) .....	per ton	85 0 ..	90 0	80 0 ..	82 0		
RHUBARB, China, good and fine .....	per lb.	2 3 ..	6 0	2 0 ..	6 4		
Good, mid. to ord. ..	"	0 3 ..	2 0	0 3 <sup>1</sup> ..	1 10		
Dutch trimmed ..	"	9 0 ..	9 6	0 0 ..	0 0		
Russian .....	"	0 0 ..	0 0	0 0 ..	0 0		
ROOTS—Calumba .....	per cwt.	24 6 ..	35 0	25 0 ..	42 0		
China .....	"	23 0 ..	27 0	24 0 ..	26 0		
Galagog .....	"	16 0 ..	19 0	17 0 ..	20 0		
Gentian .....	"	18 0 ..	20 0	24 0 ..	35 0		
Hellebore .....	"	30 0 ..	32 0	30 0 ..	35 0		
Orris .....	"	30 0 ..	70 0	65 0 ..	75 0		
Pellitory .....	"	38 0 ..	39 0	58 0 ..	60 0		
Pink .....	per lb.	0 10 ..	1 0	0 9 ..	1 3		
Rhatany .....	"	0 5 ..	0 11	0 4 ..	0 11		
Semcka .....	"	4 0 ..	5 6	0 0 ..	0 0		
Snake .....	"	1 1 ..	1 2	1 6 ..	1 7		
SAFFRON, Spanish .....	"	25 0 ..	32 0	40 0 ..	0 0		
SALEP .....	per cwt.	100 0 ..	180 0	170 0 ..	200 0		
SARASAPARILLA, Lima per lb.	0 5 <sup>1</sup> ..	0 9	0 8 ..	0 11			
Para .....	"	1 3 ..	0 0	1 0 ..	1 3		
Honduras .....	"	1 4 ..	1 8	1 2 ..	1 6 <sup>1</sup>		
Jamaica .....	"	1 0 ..	2 6	1 7 ..	2 10		
SASSAFRAS .....	per cwt.	0 0 ..	0 0	0 0 ..	0 0		
SOAMMONY, Virgin .....	per lh.	26 0 ..	30 0	26 0 ..	32 0		
second & ordinary ..	"	12 0 ..	25 0	10 0 ..	25 0		
SENNA, Bombay .....	"	0 1 ..	0 4	0 3 <sup>1</sup> ..	0 6		
Tionivelly .....	"	0 2 ..	1 0	0 3 <sup>1</sup> ..	1 5		
Alexandria .....	"	0 2 <sup>1</sup> ..	1 6	0 3 <sup>1</sup> ..	1 7		
SPERMACETI, refined .....	"	1 6 ..	0 0	1 6 ..	1 7		
American .....	"	1 2 ..	1 3	1 2 ..	1 3		
SQUILL .....	"	0 1 ..	0 2	0 1 <sup>2</sup> ..	0 1 <sup>2</sup>		
GUMS.							
AMMONIACI drop .....	per cwt.	115 0 ..	165 0	80 0 ..	150 0		
lump .....	"	80 0 ..	130 0	55 0 ..	75 0		
ANIMI, fine washed .....	"	230 0 ..	330 0	280 0 ..	335 0		
boldscraped .....	"	220 0 ..	230 0	210 0 ..	270 0		
sorts .....	"	140 0 ..	230 0	140 0 ..	230 0		
dark .....	"	90 0 ..	130 0	85 0 ..	130 0		
ARABIC, E. I., fine							
pale picked .....	"	65 0 ..	84 0	70 0 ..	70 0		
arts, gd. to fin. .....	"	60 0 ..	69 0	57 0 ..	69 0		
garblings .....	"	23 0 ..	50 0	22 0 ..	40 0		
TURKEY, pick. gd. to fin. .....	"	160 0 ..	230 0	160 0 ..	200 0		
second & inf. .....	"	85 0 ..	150 0	85 0 ..	155 0		
in sorts .....	"	0 0 ..	0 0	65 0 ..	80 0		
Gedda .....	"	30 0 ..	42 0	38 0 ..	44 0		
BARBARY, white .....	"	50 0 ..	55 0	0 0 ..	0 0		
brown .....	"	35 0 ..	42 0	47 0 ..	48 0		
AUSTRALIAN .....	"	22 0 ..	45 0	24 0 ..	42 0		
ASSAFETINA, com. to gd. .....	"	42 0 ..	105 0	30 0 ..	100 0		
BENJAMIN, 1st qual. .....	"	180 0 ..	400 0	180 0 ..	500 0		
2nd .....	"	135 0 ..	200 0	150 0 ..	210 0		
3rd .....	"	65 0 ..	85 0	40 0 ..	85 0		
COPAL, Angola red .....	"	145 0 ..	147 6	130 0 ..	137 6		
Benguela .....	"	110 0 ..	115 0	95 0 ..	110 0		
Sierra Leone .....	per lb.	0 3 <sup>1</sup> ..	0 10	0 3 ..	0 10 <sup>1</sup>		
Manilla .....	per cwt.	17 0 ..	39 0	20 0 ..	38 0		
DAMMAR, pale .....	"	55 0 ..	60 0	57 0 ..	65 0		
EUPHORIUM .....	"	12 0 ..	15 0	15 0 ..	17 0		
GALBANUM .....	"	200 0 ..	250 0	200 0 ..	260 0		
GAMBOO, peck'd pip'd .....	"	210 0 ..	310 0	215 0 ..	275 0		
GUAIAOUM .....	per lb.	0 8 ..	2 0	0 9 ..	2 10		
KINO .....	per cwt.	50 0 ..	85 0	60 0 ..	90 0		
KOWRIE, rough .....	"	30 0 ..	37 0	17 0 ..	35 0		
scrapped .....	"	37 0 ..	90 0	36 0 ..	75 0		
MASTIO, picked .....	per lb.	6 0 ..	7 0	0 0 ..	7 6		
MYRRH, gd. & fine per cwt. ....	"	120 0 ..	200 0	130 0 ..	180 0		
sorts .....	"	78 0 ..	115 0	90 0 ..	120 0		
OLINANOM, p. sorts .....	"	73 0 ..	77 0	76 0 ..	80 0		
amber & ylw. .....	"	64 0 ..	72 0	67 0 ..	75 0		
SENOAL .....	per cwt.	20 0 ..	38 0	10 0 ..	45 0		
SANDARAC .....	"	55 0 ..	100 0	55 0 ..	105 0		
SHELLAC, Orange .....	"	177 0 ..	137 0	102 0 ..	172 6		
Liver .....	"	165 0 ..	175 0	150 0 ..	160 0		
TIHUS .....	"	21 0 ..	23 0	17 0 ..	0 0		
TRAOCOANTH, leaf .....	"	270 0 ..	440 0	200 0 ..	450 0		
in sorts .....	"	70 0 ..	180 0	110 0 ..	180 0		
OILS.							
SEAL pale .....	per tun £33 0 ..	30 0	£36 10 ..	37 0			
yellow to tinged .....	"	33 10 ..	37 15	35 0 ..	38 0		
brown .....	"	38 0 ..	0 0	32 10 ..	0 0		



